Strategic Framework for Real Estate Investment in Emerging Markets: The Case of Commercial Real Estate in Bogotá, Colombia.

by

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Abstract

Real estate investment is becoming increasingly international. Deregulation and integration of global capital markets, growth of emerging market economies, demographic trends in developed economies, and geopolitical and sociocultural changes the world over are presenting opportunities for international real estate investors in a fascinating, complex and interconnected market place.

Latin America seems to be one of the last frontiers still unexplored by international real estate investors. Colombia in particular is making quiet and steady efforts to internationalize its economy and welcome Foreign Direct Investment (FDI). Among the policy-makers´ long-term goals, Colombia aspires to become one of the three most competitive countries in Latin America by the year 2032.

International real estate investors need to adapt their tools and techniques to underwrite new and uncharted markets that present investment opportunities

This thesis proposes a comprehensive strategic framework for international real estate investments, by adapting from selected business academic literature and real estate industry practice different decision-making approaches.

The purpose of the thesis is twofold. First, by proposing a strategic framework, the work intends to contribute to the development of strategic decision-making literature in international real estate investment.

Second, by utilizing the strategic framework to study selected issues and variables that are deemed *relevant* or *pertinent* to the commercial real estate market in Bogotá, it attempts to serve as a resource to international real estate investors interested in the market.

Thesis Supervisor: Gloria Schuck
Lecturer

Acknowledgments

To Alejandra and Pablo, our dreams are a reality. To my father, whose dream finally became a reality.

To my family, their love has no limits.

My sincerest gratitude to Gloria Schuck, patient and inspiring teacher.

I would like to express my appreciation to the industry participants whose comments and suggestions enriched this research, in particular: Gonzalo García from Pix, James S. Hughes and Nicolás Kling from Boston Andes, Lorenzo Kling from Mazuera, Ignacio Durán from EKKO, Jose Ignacio Robledo from Estratégias and Santiago Alberto Botero from Cuellar. Many thanks to them, and to all those who had the courtesy of sharing their views with me.

PRIMUS-VIVERES-ENDESPUES-PHILOSOPHARES
Cambridge, Massachusetts
August 2008

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Chapter 1

1. Introduction

Real estate investment is becoming increasingly international. Deregulation and integration of global capital markets, growth of emerging market economies, demographic trends in developed economies, and geopolitical and sociocultural changes the world over are presenting opportunities for international real estate investors in a fascinating, complex and interconnected market-place.

Latin America seems to be one of the last frontiers still unexplored by international real estate investors. Colombia in particular is making quiet and steady efforts to internationalize its economy and welcome Foreign Direct Investment (FDI). Among the policy-makers´ long-term goals, Colombia aspires to become one of the three most competitive countries in Latin America by the year 2032[1].

In a survey conducted in 2006, among institutional real estate investors that examined their attitudes and perceptions toward investment opportunities in Central/South America and Africa, Colombia ranked the riskiest in the continent. The respondents indicated, however that lack of expertise in terms of local information and knowledge was the reason for such a dire rank (Lim et al. 2006). This research attempts to help overcome such deficiency.

International real estate investors need to adapt their tools and techniques to underwrite new and unchartered markets that present investment opportunities.

This thesis proposes a comprehensive strategic framework for international real estate investments, by adapting different decision-making approaches from selected business academic literature and real estate industry practice.

In order to set up the context of the thesis, three fundamental issues are raised and analyzed. Why the need for a strategic framework? Why invest in international real estate? Why Colombia? The remainder of this chapter addresses these questions.

[1] Colombian Competitiveness Report 2008 – www.compite.ws

1.1. Why a Strategic Framework?

According to Michael Porter, there are two basic questions that must be answered in order to develop an effective business strategy. The first question is related to the characteristics of the industry and of the competitive environment that the company faces now and in the future. The second question relates to positioning the company within that competitive environment. (Porter, 1989)

A strategic framework is used because it allows for a more cohesive and comprehensive analysis in order to answer the two fundamental questions. It is integrative, in the sense that it gathers information from multiple resources, perspectives and criteria. Also, it combines both *top-down* and *bottom-up* approaches to real estate investing, therefore taking into consideration both *the deal* in particular, and the *context* and the *environment* in general (Roulac, 2008).

1.2. Why Invest in International Real Estate?

Real Estate Investment as an Asset Class

James A. Graaskamp, a fundamental figure in the field of academic real estate, characterized real estate investment in the following way: “real estate is a soft commodity, perhaps the softest commodity in the world. When you buy real estate, you buy a set of assumptions about the future” (Graaskamp and Jarchow, 1992, p. 376) The assumptions you buy are the economic forces at work, country-related, market-wide and project-specific that underlie the value estimate now and in the future. The analysis is prospective rather that retrospective.

The Focus of This Research

Investment in real estate can take many forms. An investor who requires exposure to the future cash flows and value appreciation that derive from real estate assets can invest directly in real estate either by buying stabilized property or by participating in the creation of real estate, or indirectly by investing either in publicly traded shares of companies or participating in private equity initiatives that invest in real estate on her behalf.

Academic research in international real estate deals primarily with indirect investments. The focus of this thesis is on *direct real estate investment* in the commercial real estate market of Bogotá.

Real property investment is becoming increasingly international oriented. According to the academic and institutional literature, the key criteria in the investment decision-making process as related to international real estate investment are expected return, risk and diversification benefits (Lizieri and Finlay, 1995; Lim et al., 2008).

<u>Rationales (Motivations) for International Real Estate Investment</u>

Several authors mention different rationales or motivations for investing in international real estate:

- Lack of domestic opportunities, either (1) because the market has reached a mature stage and economic or demographic growth will be relatively low and so will property demand (these are structural return opportunities which require a long-term perspective from the investor) or (2) because of slowing economic conditions. The latter implies the ability to predict property market cycles; these are cyclical return opportunities of short-term and opportunistic nature (Worzala, 1997; Geltner et al., 2007)
- Currency strength (Worzala, 1997).
- Diversification, low to negative correlation with current investments. According to Geltner, empirical evidence has shown that international property markets tend to have low correlations and an unsynchronized behavior. The trend, however, tends to be of regionalization and correlations among neighboring countries might be relatively high (Worzala, 1997; Geltner et al. 2007)
- Match of investment to liabilities (Worzala, 1997)
- Higher returns (Worzala, 1997)
- Export of real estate development and investment management expertise. In countries with developing property markets extra value can be added if international companies bring their know-how, their standards and their clients (Geltner et al., 2007).

Some property companies have as their main strategic objective the pursuit of international opportunities. Examples of such strategy are: (1) Equity International, a Chicago-based private equity investor founded by Sam Zell and Garry R. Garrabrant, and

(2) the Emerging Markets funds sponsored by Houston-based developer Hines. Examples of their vehicles can be found in Appendix A.

Problems (Risks) in International Real Estate Investment

A look at the literature dedicated to the obstacles and disadvantages of investing in international real estate provides a guide to categorize the different risks that investors may encounter.

- Risk in international real estate investment can be of country, market or deal nature (Conner et al., 1999).
- Risk in international real property investment can be divided between *economic* and *non-economic* risks. Among these two areas, risk can be categorized as (a) Risk Assessment Variables, (b) Property Rights Variables, (c) Sociocultural Variables, and (d) Foreign Investment Variables (Geurts and Jaffe, 1995).
- In 2003 a Global Real Estate Risk Index was constructed by Chen and Hobbs which provided a measure based on three components: country, structural real estate, and cyclical real estate risks. According to the authors, these dimensions of real estate risk are mostly related to the uncertainty of future investment returns, and therefore to capture risk it is necessary to identity and to measure the factors leading to this uncertainty (Chen and Hobbs, 2003).
- Risks can also be related to transactions costs, such as transfer taxes, agent fees and legal fees. Significant differences on property rights and their effect on overall economic efficiency of the market are also studied by economic theory (Geltner et al., 2007; Jaffe and Louziotis, 1996).
- Information costs can also be a source of risk for the investor. The challenges of getting appropriate local market information, cultural and language barriers, as well as lack of transparency, can result from markets at different maturity stages. The issue most relevant for international investors is their ability to acquire meaningful, fairly priced information. Information is a critical factor in successful investment. (Geltner et al., 2007; Hines, 2001; Keogh and D'Arcy, 1994)
- Asset-specific risk (non-systematic risk) is by definition one of the most difficult to mitigate. This aspect, however, is where the international investors have an edge over local players. A better built, managed and disposed of asset will provide more value.

The above-mentioned risks are directly related to real estate in an international environment. There are also risks of a global nature that may have their origin in economic, political, geographical or environmental issues.

Long-term economic and geopolitical factors that might have an impact on the attractiveness of Colombia as an investment destination, and for that matter on that of Latin America and emerging markets as a whole. These factors are:

- Asset price collapse, prices of real estate in develop economies
- Retrenchment from globalization, particularly in emerging economies
- Oil and gas price spike
- Food insecurity
- Failed and failing states the “geographies of order and disorder”
- Global warming, changing rainfall patterns, heat waves and droughts
- Unsustainability of the US current account deficit, major fall of the US$
- Collapse of Non-Proliferation Treaty
- Conflicts/war in the Middle East

An interconnected world means also interconnected risks, and although not necessarily in a direct causative relationship, it implies that now more than ever the world is vulnerable to disruptions in the global flow of people, capital and technology.[2]

Reasons for international real estate investment can range from the need for diversification and higher yields to economic and political motivations. According to Worzala (1997), majors factors that contribute to foster interest in international real estate are: favorable exchange rates, lack of local opportunities, interest-rate differentials, greater liquidity of international real estate markets, political diversification, economic diversification, geographic diversification, arbitraging market conditions, perceived comparative advantages, substantial growth in available investment funds, investment stability, improved global communication, improved market information and access to investment capital (Newell and Worzala, 1995; Baum and Wurtzebach, 1993).

[2] World Economic Forum – *Global Risks 2008: A Global Risk Network Report January 2008*.

Diversification

Markowitz (1952, 1959) laid the groundwork for modern portfolio theory. He suggested that by investing a wider set of assets that had low correlation among them, it was possible for the investor to reduce the risk of a portfolio without reducing the expected return. The logic behind these findings is that, not only is risk quantifiable, but it can also be broken down in two parts: *Systematic Risk* or the portion that cannot be avoided or diversified away once a decision to invest in an asset is made, and *Diversifiable Risk*, which is the component of the asset's total variance that is not correlated with that of the market, which is also called *Idiosyncratic Risk*.

Numerous studies have suggested that including international stocks and bonds provides increased portfolio performance (or reduced portfolio risk) (Worzala and Newell, 1997), that is, by moving the efficient frontier upwards and to the left once they are included in the portfolio. However, with regards to international real estate stocks, in spite of having very low correlations with domestic assets, their very high correlation with other international assets usually causes them to drop out of the efficient frontier (Ziobrowski and Curcio, 1991).

In Worzala and Sirmans (2003), the authors argue that modern portfolio theory might not be the best tool to measure the diversification benefits of real estate as an asset class. Others like Barkham and Geltner (1995) conclude that price discovery from stock markets can be found, first in the real estate stock markets, then in the direct real estate markets. If there is this lag and lack of information from the direct real estate markets, why go through the hassle of buying an income producing property in an unexplored market when you can buy shares of companies that conform to capital markets standards and have the exposure to real estate?

Risks are perceived differently by international real estate investors, depending on the type and origin. Investors from capital-exporting countries, like Canada, Germany, several Gulf Emirates and Singapore, are well accustomed to the challenges of cross-border real estate investment. In general terms they view international real estate as a logical extension of domestic activities (LaSalle Investment Management, 2000).

Institutional investors from the USA, UK and Australia, on the other hand, place a much higher risk premium on non-domestic ventures, in which they incorporate country risk, currency risk, degree of market transparency and real estate fundamentals (JLL 2000).

Because of the high level of governance, institutional investors and in particular pension funds are required to underwrite all investments with prudent guidelines. For international real estate investments, the California Public Employees Retirement System (CalPERS) highlights the following risks[3]:

- Legal and regulatory environment
- Potential political and economic instability
- Currency exchange rate volatility
- Inconsistent building design and construction standards
- Tax policy and regulatory differences
- Lack of reliable and consistent real estate market information and local employment and demographic data

1.3. Why Colombia?

The reasons Colombia must be viewed as an attractive real estate investment destination, are: long term trends in demographics, Colombia has a relatively young and educated population; geopolitical factors, Colombia is strategically situated at the entrance of South America and is the United States´ only unconditional ally in the region. There are also opportunistic factors. Fundamentally the country is undeveloped, underserved, with poor infrastructure (Proexport, 2007).

There is a silent revolution in Colombia. During the past decade Colombia, as a society, as an economy and as a country has managed to turn around a chaotic and hopeless situation where net migration and Foreign Direct Investment indicated a flight of resources from the country.[4]

As of July 2008, FDI has reached a record US$9 billion in 2007 and US$2 billion in the first quarter of 2008. According to the strategic plan for 2019, in the next 10 years demographics in Colombia will look like this: 1 city with over 10 million inhabitants, 5 with over 1 million and 10 with over 500,000. Unlike most other Latin American countries Colombia is not a “mono-city” country.

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[3] CalPERS, www.calpers.ca.gov, International Equity Real Estate Investment Policies.
[4] www.proexport.com.co and www.investinbogota.org

Colombia is on the international radar. Among the emerging economies, the country is beginning to attract the attention of investors who perceive a favorable risk-adjusted return for their projects. Industries such as mining, coal, petroleum, tourism, software development and cosmetics are targeted by the government as those with the greatest competitive potential and the focus of cluster forming policies.[5] These industries are projecting combined investment in Colombia of over $50 billion during the next 7 years (CONPES, 2007).

In light of this renewed international interest, what are the implications for the Colombian real estate market? What are the implications for the international real estate investor? What opportunities arise in the Colombian real estate market and what are the risks of investing in the country?

Up to this point, the motivations for this research have been explained. Colombia is becoming an increasingly attractive investment destination. Our main concern is the behavior that characterizes a specific type of international investment, international real estate. Now, in order to advance in the analysis of opportunities for real estate investors in Colombia, a strategic framework will be presented. Then, the strategic framework will be used to gauge the opportunities in commercial real estate investment in Bogotá, Colombia.

[5] Colombian Private Competitiveness Council – www.compite.ws – A Cluster is an economic sector that has world class productivity, produces a steady income and exports its products. A Cluster also promotes advances in technology and concentrates over 10% of the employment of a region.

Chapter 2

2. Strategic Framework

The decision to explore a real estate investment proposal in an emerging market should follow careful consideration of the key issues and critical variables that determine its future performance.

2.1. Structuring a Strategic Framework

The framework proposed is adapted from the following sources:

a) Root, F. R. (1994) *Entry strategies for international markets*.
b) Estrin, S., & Meyer, K. (Eds.) (2004) *Investment strategies in emerging markets*.
c) Cavusgil, S. T., Ghauri, P. N., & Agarwal, M. R. (2002) *Doing business in emerging markets: Entry and negotiation strategies*.
d) Pacek, N., & Thorniley, D. (2007). *Emerging Markets: Lessons for business success and the outlook for different markets* (2nd ed.).

It is important to note that these sources, among others, provide a decision-making framework for entering international and emerging markets for business in general and that the purpose of this thesis is to adapt such frameworks to an international real estate context and then to the Colombian market.

The framework is structured in three levels of analysis:

- Strategic (Risk) Analysis
- Political (Risk) Analysis
- Economic (Risk) Analysis

These are the building blocks of the analysis. The strategic framework provides an analytical model that facilitates systematic comparisons, simplifies an otherwise complex process and anticipates the strength and direction of the varied forces at work (Root, 1994). In each of the three levels there are many fundamental issues that need to be addressed. For the purposes of this thesis most of these issues are analyzed within the context of a real estate investment.

Within each of the three levels of analysis, two dimensions of issues and variables arise: external and internal. The external factors cannot be controlled by the foreign investor but greatly influence the decision. The internal factors are those firm- and/or project-specific and can be controlled by the managers. Uncontrollable elements are present both in domestic and foreign environments, but the scope and depth of these elements in international settings and particularly in emerging markets make such transactions more complicated (Cateora, 1993).

Conner et al. (1999) describe the way that risk is categorized by institutional real estate investors. The *strategic level* of analysis amounts to the underwriting of the *market risk*, is concerned with the different property and economic cycles, and is short-term in nature. *Political analysis* is akin *to country risk.* It describes the stability of a country and the stage of development of its legal and financial system, whether they are integrated with the global capital markets and what direction this integration is taking. Country risk is more indicative of long-term risks. *Economic analysis* in this framework is specific to individual investment and is related to a deal-level risk. It is important to note, however, that "economic factors" by definition, are present in all three levels of analysis. This is after all a strategic framework designed to gauge the appraisal of an investment.

Remember Graaskamp: "*when you buy real estate, you buy a set of assumptions about the future.*" The assumptions you buy are the economic forces at work (the country-related, the market-wide and project-specific issues) that underlie the value estimate now and in the future. The analysis is prospective rather that retrospective (Graaskamp and Jarchow, 1992).

The framework in Figure 1 depicts the types of risks that investors face. It summarizes the issues and variables that must be researched and monitored during the course of an international real estate investment.

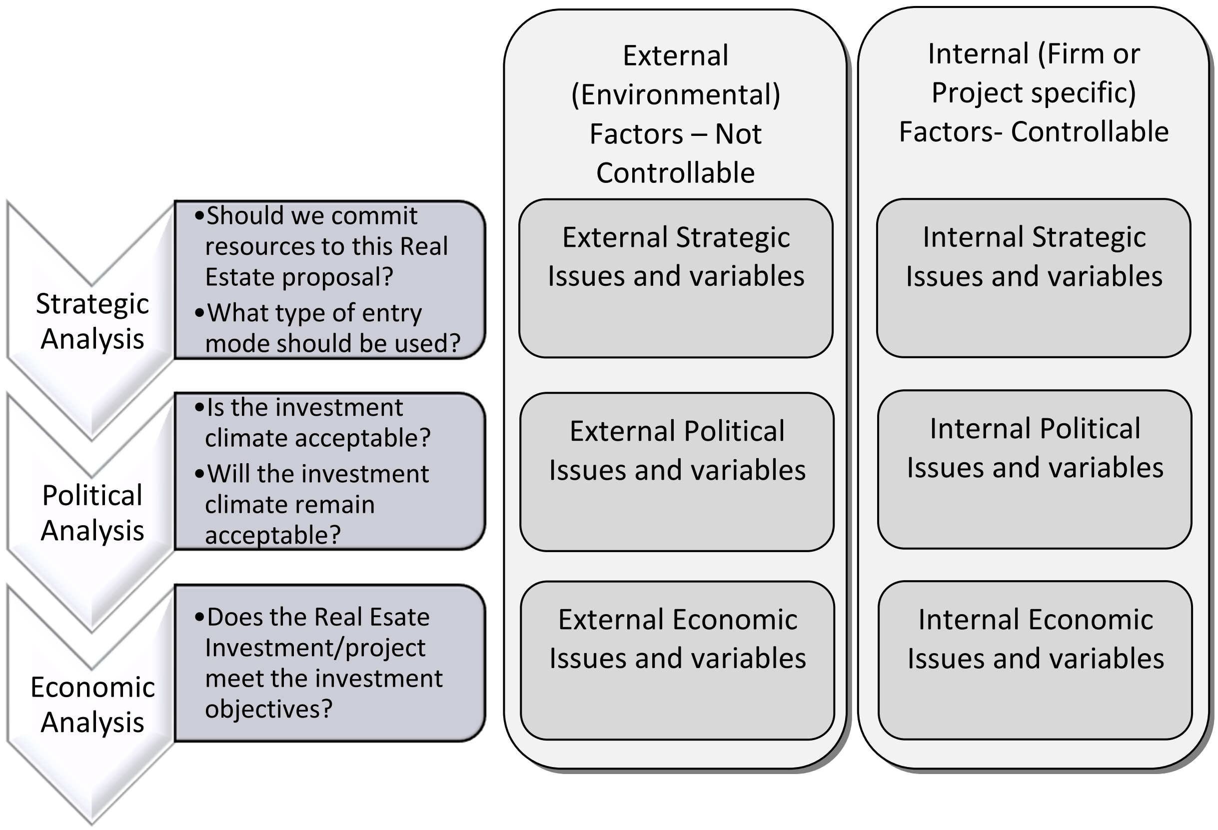


Figure 1 – Strategic Framework for International Real Estate Investments

The decision-making process for an international real estate investment usually follows a combination of: (1) a *top-down approach,* where a strategic decision is made to invest in international real estate and then opportunities are researched, and (2) a *bottom-up approach,* where investment opportunities are brought to the investor and only after they meet the initial objectives additional are risk and return characteristics considered (Worzala, 1997).

By aligning in each of the three level of analysis the uncontrollable with the controllable variables, the international real estate investor can determine the risks that the venture will face and the appropriate strategy to manage them.

The intention of the proposed strategic framework is to provide answers to the following questions. What are those issues and variables that are *relevant*[6] sources of risk and return for an international real estate investor entering the commercial real estate market in Bogotá, Colombia? What is their present behavior and how are these variables likely to change during the course of an investment?

Academic and industry literature pertaining to international real estate investment identifies the variables listed in Table 1 as pertinent sources of risk and return.

Table 1 – Issues or Variables Identified as Pertinent Sources of Risk and Return

Issues or Variables identified as pertinent sources of risk and return	Authors/Source	Strategic Framework Level of Analysis	Metrics/Proxies
Country Risk Premiums	Liang and McIntosh (2000), Lee (2005), (JLL 2000), Dockser et al, (2001).	Economic (Risk) Analysis	Country risks premiums
Economic Issues: high current account deficits, overvalued exchange rates, high inflation, large short-term dollar denominated debt, low capital formation	Kateley (2002), Lee (2005), Dockser et al (2001), Geurts and Jaffe (1995)	Political (Risk) Analysis	Inflation rate, unemployment rate, change in unemployment rate, current account deficit
Macroeconomic Fundamentals: level and volatility of economic performance	Chen and Hobbs (2003), Lee (2005), Dockser et al (2001), Geurts and Jaffe (1995)	Political (Risk) Analysis	Real GDP per capita, GDP per capita growth rate, PPP, World Economic Forum
Political Issues: political stability, poor regulation of the banking system, corrupt government oversight/cronyism	Kateley (2002), Lee (2003), Dockser et al (2001), Lim et al (2006), Geurts and Jaffe (1995)	Political (Risk) Analysis	Country Risks Ratings
Transparency: lack of data on performance, lack of data on investments. Information (Risks) Costs	Kateley (2002), Chen and Hobbs (2003), Lee (2003), Geltner et al (2007), Conner and	Strategic (Risk) Analysis	JLL Transparency Index

[6] *Relevance* by definition implies "*having significant or demonstrable bearing on the matter at hand*" (Merriam-Webster Dictionary).

Issues or Variables identified as pertinent sources of risk and return	Authors/Source	Strategic Framework Level of Analysis	Metrics/Proxies
	Liang (2006), Geurts and Jaffe (1995)		
Lack of Property Rights: ownership, entitlement	Kateley (2002), Lee (2005), Geurts and Jaffe (1995)	Political (Risk) Analysis	Country Risks Ratings, Property Rights Index
Liquidity Risk	Kateley (2002), Chen and Hobbs (2003)	Strategic (Risk) Analysis	Country Risks Ratings
Tax Regimes	Worzala and Sirmans (2003), Lee (2005), Conner and Liang (2006)	Economic (Risk) Analysis	Country Risks Ratings
Accounting and Legal issues	Worzala and Sirmans (2003), Lee (2005)	Political (Risk) Analysis	Country Risks Ratings
Exist Strategies: availability to correctly price markets and to realize the returns	Chen and Hobbs (2003)	Economic (Risk) Analysis	
Target Real Estate Market characteristics: Market maturity, size and liquidity, stage in the RE cycle	Chen and Hobbs (2003), Lee (2003), Geltner et al (2007), Conner and Liang (2006)	Strategic (Risk) Analysis	Current stock, Pipeline, Current Market Value, Rents, Vacancy rates, Vacancy rates Volatility Absorption rates, position in the RE Cycle, GDP Growth forecasts
Target Market Investment Risks	Chen and Hobbs (2003)	Economic (Risk) Analysis	Cap Rates, Volatility of Total Return Performance
Exchange Rate – Currency Risk	Conner et al (1999), Worzala and Newell (1997)	Political (Risk) Analysis	
Socio-cultural issues	(Hines, 2001), (Lim et al, 2006), Geurts and Jaffe (1995)	Political (Risk) Analysis	

2.2. Variable Selection

In order to give the strategic framework credibility, a selective review of the literature pertaining to international real estate investment in emerging markets was carried out. In each case, what the authors regard as relevant variables and issues for the international investor are identified. Then each group of variables, e.g., macroeconomic fundamentals, political risk, currency risk, liquidity risk, and information costs (transparency), is placed in one of the three levels of analysis of the strategic framework.

While some of these variables are relevant to real estate investments in emerging markets in general, some may be relevant only to the particular real estate market under study. The important issue at hand is that the variables are selected because there is an academic and professional consensus as to their relevance for international real estate investors. Then the present and prospective behavior is analyzed.

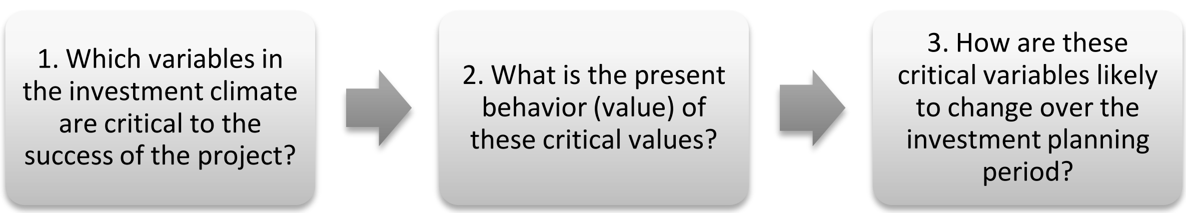


Figure 2 – Variable selection and variable analysis

2.3. <u>The Scope of Analysis</u>

This thesis will concentrate on the analysis of the **external uncontrollable** issues and variables that affect and international real estate investment in the commercial real estate market of Bogotá.

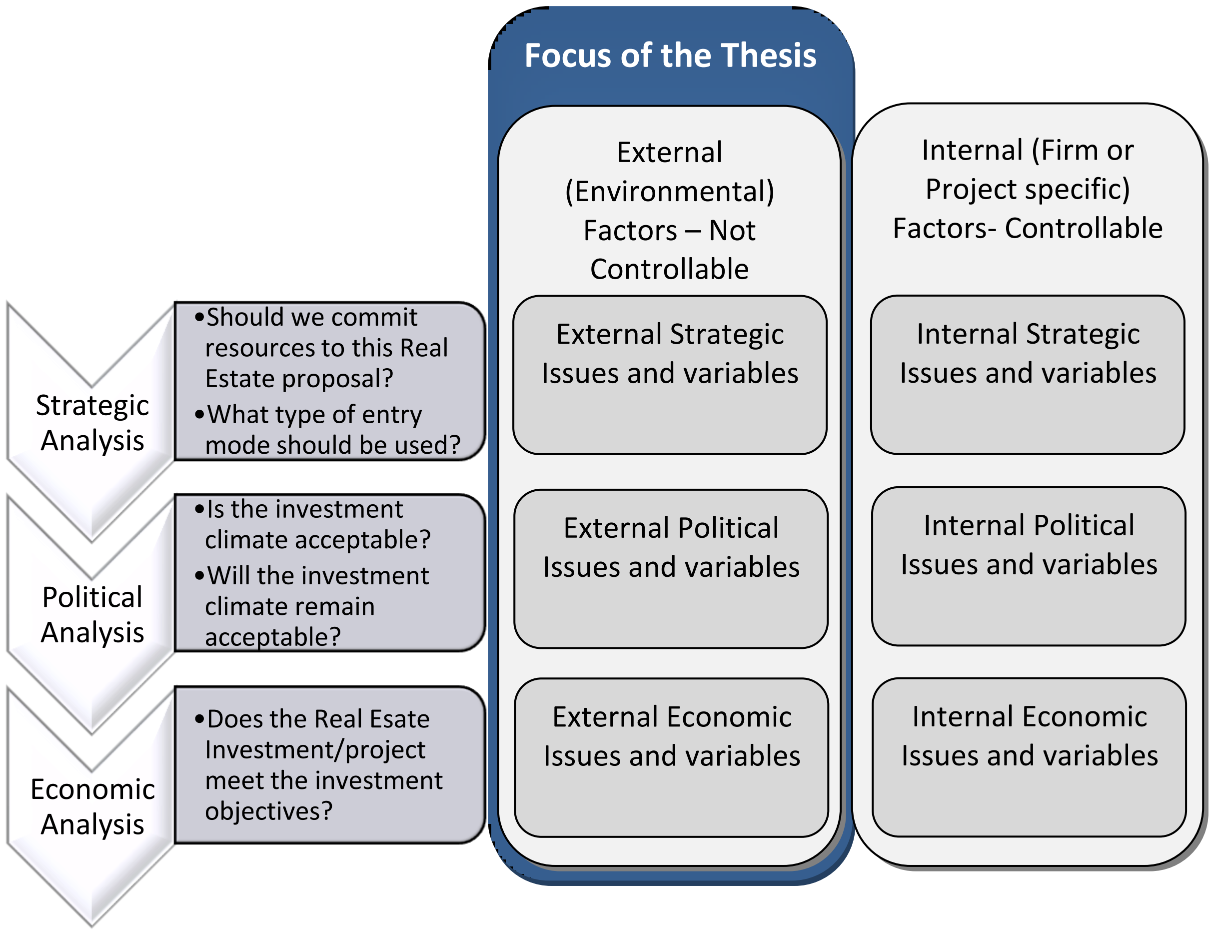


Figure 3 – Strategic Framework for International Real Estate Investments – Focus of the Thesis.

These are the variables that are common to every investor interested in the market, although some of the risks are by definition non-diversifiable, partly because they are uncontrollable. They can be mitigated with the appropriate risk management techniques. It seems that one of the most effectives of these techniques is the comprehensive and thorough gathering of all the information pertinent to the investment.

Chapter 2 - Chapter Summary

The purpose of the current chapter was to present the strategic framework, its origins and its components. The main components of the strategic framework are the relevant variables and issues that international investors must take into account when analyzing an opportunity outside their domestic market. These variables are categorized in three levels of analysis that correspond to risks of market-, country- and deal-specific origin. At the same time, the variables and issues can be of external-uncontrollable or internal-controllable nature.

The following chapters attempt to utilize the above-mentioned strategic framework to analyze the external-uncontrollable variables and issues that international real estate investors might encounter when entering the commercial real estate market in Bogotá, Colombia.

In particular, chapter 3 will focus on those external-uncontrollable issues of strategic origin. Particularly, those variables that are market related. Questions that will be answered include: What is the size of the office market in Bogotá? What levels do vacancy rates in the market have and what is their projected behavior? How is the competitive structure in the market?

Chapter 3

3. <u>Strategic (Risk) Analysis</u>

The first level of analysis attempts to answer the question ¿Should we commit resources to this proposal? This is the beginning of the analysis program; it is the point where the fundamental strategic decisions and commitments are made.

The final intent of this type of analysis is to provide an alignment of the external uncontrollable variables with the internal company-specific characteristics on a strategic level. Recalling Porter´s definition of strategy, the intention is to identify the fundamental characteristics of the industry, analyze the competitive environment, and position the investor in this competitive environment.

Figure 4 present the strategic level of analysis with both external and internal groups of variables. The scope of this thesis is to analyze some of the most relevant external variables.

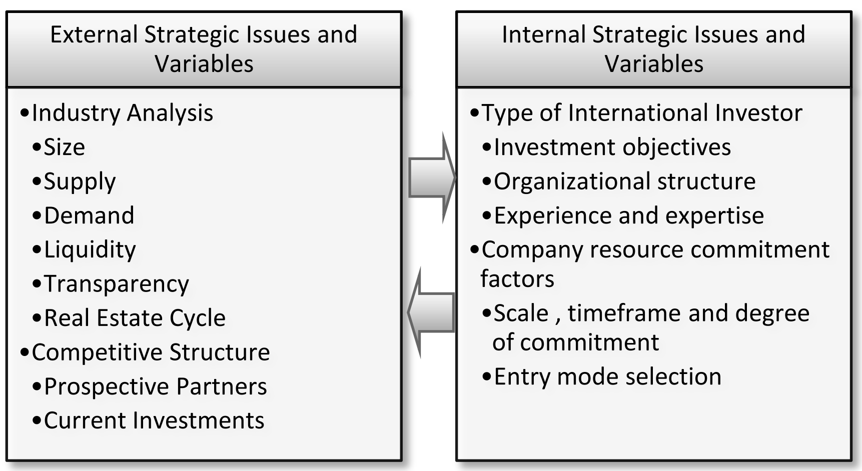


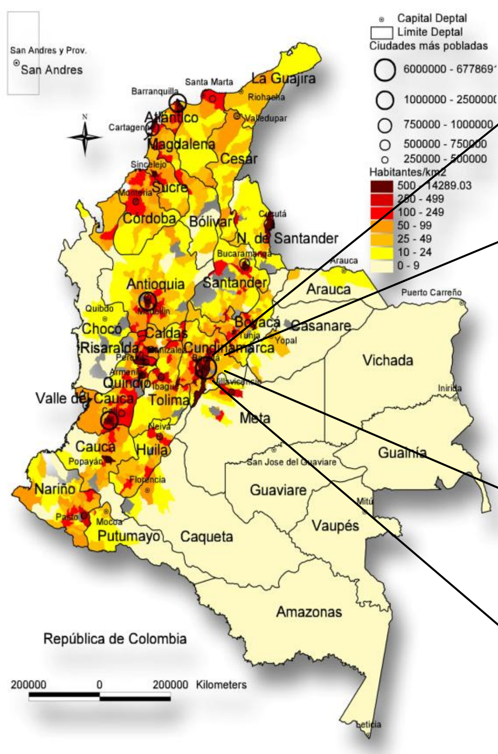
Figure 4 - Strategic Level Analysis – Issues and Variables

In order to concentrate on the external issues and variable pertaining to the strategic level of analysis, selected components of the commercial real estate market in Bogotá will be addressed in the following order:

- 3.1 Industry Analysis
  - 3.1.1 Size
  - 3.1.2 Area Permitted
  - 3.1.3 Supply
  - 3.1.4 Pipeline
  - 3.1.5 Demand
  - 3.1.6 Liquidity
  - 3.1.7 Transparency
  - 3.1.8 Real Estate Cycle
- 3.2 Competitive Structure
  - 3.2.1 Prospective Partners
  - 3.2.2 Ownership of Real Estate
  - 3.2.3 P.E.I
  - 3.2.4 Current Investments
- 3.3 Internal Strategic Issues and Variables

3.1. <u>Strategic – External: Target Country Industry Analysis: The Commercial Real Estate Market in Bogotá</u>

The application of the strategic investment framework will concentrate on the commercial real estate market in Bogotá, Colombia.



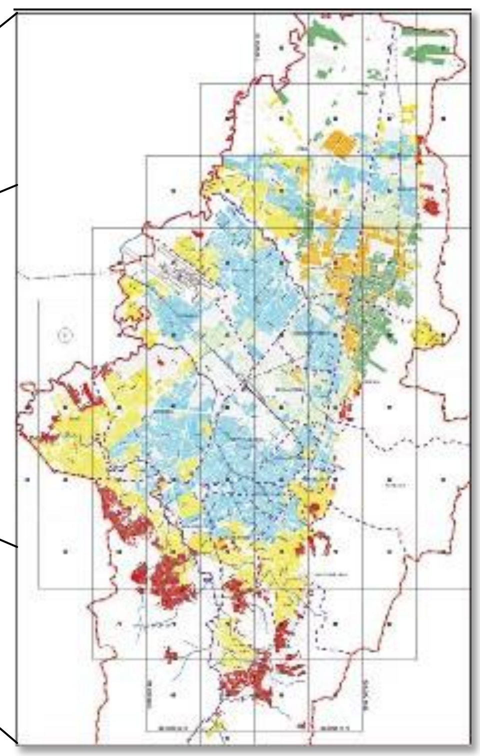


Figure 5 - Map of Colombia

Figure 6 - Map of Bogotá

The map of Colombia displayed in Figure 5 shows the more densely inhabited areas of the country. Bogotá is by far the largest city with close to 7 million inhabitants, followed by Medellin, Cali and Barranquilla. Almost half the area of the country is scarcely inhabited, while the denser parts are concentrated towards the Pacific and Atlantic coasts. Figure 6 shows the map of Bogotá.

3.1.1. Strategic – External: Size

Bogotá is the capital of Colombia and its economic, cultural and political center. It is the fourth largest city of Latin America. Bogotá´s GDP was US$29 billion in 2006, almost a third of Colombia´s GDP, with a GDP per capita of US$4,142.

3.1.2. Strategic – External: Permitted Area in Bogotá

The total area permitted in Colombia during the past 10 years for all real estate development is 124,044,245 M2 (1,335,201,140 sf). On average the total area permitted per year in Colombia for all real estate development during the past 10 years is of 12,300,000 M2[7] (132,400,000 sf). In the year 2007, 6,277,000 M2 (67,565,000 sf) were permitted in Bogotá amounting to 33% of the national area. As seen in Figure 7, the relative area permitted in Bogotá with respect to that of Colombia has been increasing during the last 9 years; some experts predict the beginning of the downward trend at the end of the current year.[8] See Appendix F for a complete list of permitted areas.

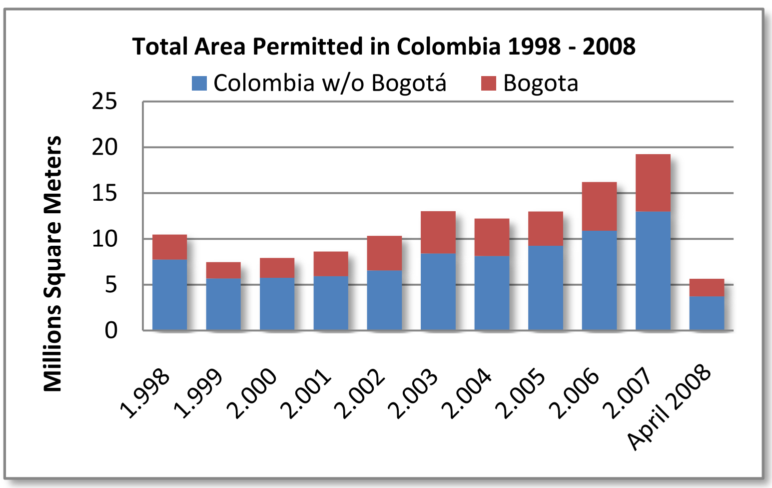


Figure 7 - Total Area permitted in Colombia 1998 – 2008

Source: Camacol 2008

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[7] In line with the international spirit of the present work, it is important to mention some spatial measurement equivalences 1 square meter = M2 = 10.76 square feet, 1 square feet = sf.

[8] Face-to-face conversations with participants in the Colombian real estate market. See Appendix A.

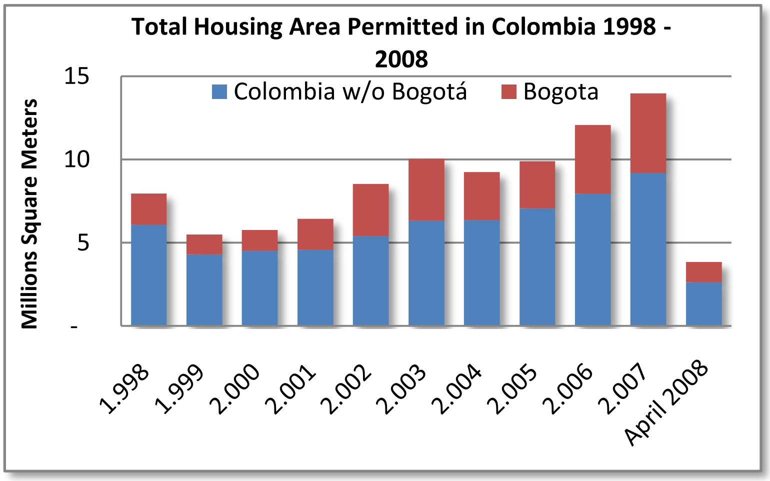


Figure 8 - Total Housing Area permitted in Colombia 1998 – 2008
Source: Camacol 2008

Likewise, Bogotá represents on average 30% of the total area permitted for housing use in the country. Figure 8 presents the total area permitted for housing during the last 10 years. In the case of office space, however, the proportion is the inverse. Bogotá represents on average 65% of all the area permitted for this use in the Colombia, with exception of the year 2007 in which the area permitted for office space in Bogotá, represented 81% of the country´s area permitted for this use. Figure 9 shows the area permitted for office use in Colombia during the last 10 years.

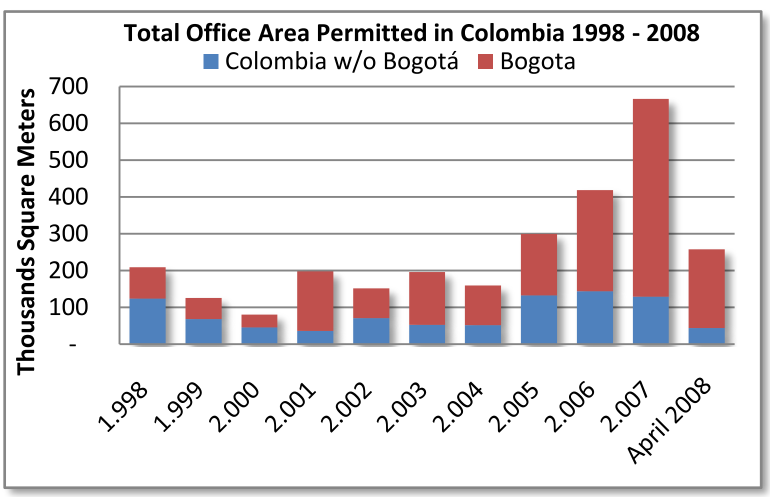


Figure 9 - Total Office Area permitted in Colombia 1998 – 2008
Source: Camacol 2008

Table 2 – Total Area permitted for Office Use in Colombia and Bogotá 1998-2008

Year	Colombia w/o Bogotá	Bogota	Colombia
1.998	123.506	85.450	208.956
1.999	68.341	57.172	125.513
2.000	44.996	35.371	80.367
2.001	35.946	161.312	197.258
2.002	70.212	80.963	151.175
2.003	52.473	143.618	196.091
2.004	51.504	107.410	158.914
2.005	132.424	166.331	298.755
2.006	143.248	274.663	417.911
2.007	128.849	536.730	665.579
April 2008	43.938	213.705	257.643
Total	895.437	1.862.725	2.758.162

Source: Camacol 2008

Table 2 shows in more detail the evolution of the area permitted for office use in Bogotá. This includes all types of office space; see Table 3 for a description of the different classes of building types. It is important to note that this is gross floor area, and that the net usable (leasable) area is approximately 65-70% of the area permitted.

Bogotá represents over 57% of Colombia´s real estate industry´s GDP (Camacol, 2007a). Logic will therefore imply that the port of entry for international real estate investors into Colombia will be Bogotá.

In contrast to this logic, the most important international real estate investment player to have entered the Colombian market so far, Sam Zell´s Equity International, did it through the establishment of their Chilean Shopping Center developer *Parque Arauco*[9] in Pereira, a city of 600,000 inhabitants, 360 km northwest of Bogotá. On the same strategic line, the Miami-based Related Group, through its affiliate Related International is entering Colombia with a partnership in the city of Cartagena.[10]

Market size is critical to real estate investment because of its close relationship with liquidity and transparency. It is better to measure market size according to market value

[9] Asociación de Centros Comerciales de Medellín, ASOCENTROS, CC Magazine # 6, Interview Andrés Olivos CEO, Parque Arauco

[10] Portafolio, Colombian Business Newspaper – www.portafolio.com.co – January 23 2008

rather than floor space, as the value of a market is a better proxy for its depth and sophistication (Chen and Hobbs, 2003).

3.1.3. Strategic – External: Supply

Office space in Bogotá is divided into Class A+ (AA), A, B, and C, with the characteristics described in Table 3. As of June 2008 Class A+ (AA), A, B space is comprise of approximately 1,600,000 M2 (17,200,000 sf) distributed in 128 buildings[11] (Colliers International, 2007).

Table 3 – Office Building Type – Description

Office Building Types Description	
Class A+ (AA)	High end of the market. Less than 10 years since construction. Minimum Floor height 3.5 M (11,5ft). 1 parking space per 30 M2 (323 sf).
Class A	Between 10 and 20 years since construction. Max Floor height 3.5 M (11,5 ft). 1 parking space per 40 M2 (431 sf). Good security and fireproof systems.
Class B	Between 21 and 25 years since construction. Max Floor height 2.5 M (8,2 ft). 1 parking space per 50 M2 (538 sf). Basic security and fireproof systems.
Class C	1 parking space per 70 M2 (754 sf). Average floor size 200 M2 (2.152 sf)

Source: Colliers International

Table 4 provides a comparison of the office space in the major capital cities in Latin America. The office space in Bogotá lags behind cities like Sao Paulo, Mexico and Santiago.

[11] Colliers International is the only international real estate advisory services firm that conducts regular analysis of the office market in Bogotá. Jones Lang LaSalle offers a yearly profile of the city.

Table 4 – Size Comparison - Office Space in Latin America

Size of the Office Space market in Latin America – 1st Quarter 2008		
City	Buildings	Area
Bogotá (Colombia) (A+/A/b)	128	1.600.000 M2 (17.200.000 sf)
Mexico (Mexico) (A/B/C)	545	4.633.000 M2 (49.870.000 sf)
Santiago (Chile) (A/B/C)	N/A	2.044.000 M2 (22.001.000 sf)
Buenos Aires (Argentina) (A/B)	N/A	1.361.000 M2 (14.650.000 sf)
Sao Paulo (Brazil) (A/B)	N/A	2.228.000 M2 (23.982.000 sf)
Lima (Peru)	50	396.000 M2 (4.263.000 sf)
Caracas (Venezuela)	55	745.000 M2 (8.020.000 sf)

Source: Colliers International – Jones Lang LaSalle

Office space in Bogotá is mostly segmented in 9 subsectors: Andino, Avenida Chile, Calle 11, Centro Internacional, Chicó, Nogal, Otros, Salitre (by the Airport) and Santa Bárbara. Table 5 shows rents and areas for the 3 office classes in Bogotá. According to Colliers International Class A+ is represented in 19 buildings with a total of 702,000 M2 (7,557,000 sf). Class A has 461,000 M2 (5,000,000 sf) in 33 buildings, and Class B space is located in 76 buildings with 419,000 M2 (4,510,000 sf). Class C office space is not reported by Colliers International but it is estimated to be the same size as the other three classes combined.[12]

Table 5 – Rents and Areas of Office Space in Bogotá

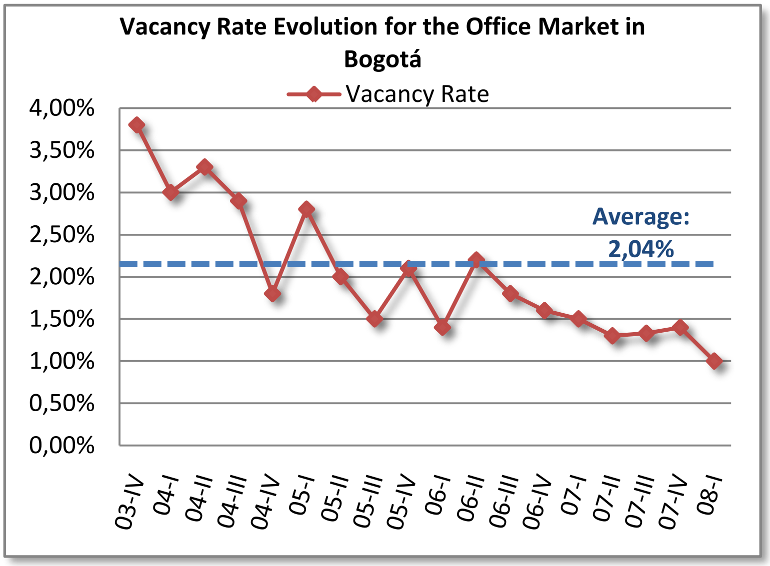
Class	Buildings	Stock M2	Stock sf	AVG Mo. Rent COP$	AVG Mo. Rent US$ (2,076COP$:US$)
A+	19	702.096	7.557.291	52.300	25,22
A	33	460.661	4.958.509	39.600	19,09
B	76	418.928	4.509.299	36.600	17,65
Total	128	1.581.685	17.025.099		

Source: Colliers International – Jones Lang LaSalle

Vacancy rates in Bogotá have averaged 2.04% during the last 5 years. High volatility of vacancy rates might be an indicator of a riskier market, because supply shocks are more severe. Figure 10 exhibits the behavior of the vacancy rate in the 3 main office classes during the last 5 years. In the case of Bogotá the tendency has been smooth and

[12] Face-to-face conversations with participants in the Colombian real estate market. See Appendix A

downward sloping for the past 2 years; this, however, might be about to change. Among the different factors cited by the participants[13] for the reversal of this trend include the 500,000 M2 (5,380,000 sf) currently in the pipeline and the slowing growth of the Colombian economy.



Source: Colliers International

Figure 10 – Office Market Vacancy Rate in Bogotá 2003 - 2008

3.1.4. Strategic – External: Pipeline

As of June 2008 there are over 400,000 M2 (4,305,000 sf) in construction that will enter the market between the years 2008-2010 in 54 projects. Additionally, over 200,000 M2 (2,152,500 sf) represented in 29 projects are already permitted and being pre-sold, which is the way that most projects are marketed in Colombia. Because most of the real estate projects in Colombia are marketed in this way, through pre-sales and condo style (divided in small units), usually the marketing phase is longer and construction only begins after an equilibrium point is reached. See Section 3.2.2 on competitive structure for a note on sales and marketing characteristics

[13] Ibid.

3.1.5. Strategic – External: Demand

The expected absorption in the office market is forecasted by real estate consultants at around 300,000 M2 (3,230,000 sf).

There are several reasons why the absorption rates in Bogotá were expected to match the current pipeline. The fundamental one was better than average economic performance of the country during the last half decade.
The price of office space has increased significantly in the same period. Quoted prices for new Class A+ office space in Bogotá at the middle of 2008 were $5,000,000 M2 (US$ 252 sf). Table 6 shows the prices for office space in Bogotá and their conversion to American standards.

Table 6 – Prices of Office Space in Bogotá

Class	Average price per square meter COP$	Average price per square meter (1840COP$:US$)	Average price per square feet COP$	Average price per square feet (1840 COP$:US$)
A+	4.950.000	2.690	459.870	250
A	4.560.000	2.478	423.638	230
B	3.200.000	1.739	297.290	162

Source: Colliers International – Jones Lang LaSalle

3.1.6. Strategic – External: Liquidity

In Colombia where there is a high proportion of owner-occupied commercial real estate, the liquidity or rather illiquidity of the market is embodied by the inexistence of a public real estate market (save one player) and the immature state of the real estate services industry.

Liquidity risks might also be encountered, for real estate is usually infrequently traded, closely held or in short supply. According to Kateley (2002), liquidity depends on the availability of debt and equity capital, stage of the development capital markets, fiscal regimes and overall strength of the market.

3.1.7. Strategic – External: Transparency

Transparency in real estate investment is generally referred to as the availability of performance data, the cost of information, the hidden cost of transactions. Jones Lang LaSalle defines it as any open and clearly organized real estate market operating in a legal and regulatory framework that is characterized by a consistent approach to the enforcement of rules and regulations and that respects private property rights (JLL 2000). For a complete list of the index see Appendix E.

The Jones Lang LaSalle Transparency Index categorizes a transparent market as one the exhibits the following traits:

- Accurate market and financial information
- Reliable performance benchmarks
- Enforceable contracts and property rights
- Clarity regarding the taxation and regulation of real estate
- Fair treatment in the transaction process
- Ethical standards among professionals hired to transact business

Although Jones Lang LaSalle does not have an office in Colombia, it lists Colombia´s rank at 50^{th} among the 56 countries in the index and locates the country in the Low Transparency Tier. This is surprising because, of all the traits listed above, Colombia only lacks accurate benchmark and financial information. With regards to property rights, taxation schemes and ethical standards, Colombia is well developed.

Transparency influences risk in a number of ways. A more transparent market makes it easier to accurately price real estate, which in turn reduces uncertainty. A more transparent market may to some extent prevent oversupply of an asset class

The main issue with regards to investing in direct real estate in foreign markets is that of information. Investors with a track record in a local market are able to understand the forces that govern such investments, when going international investors are better off by partnering with a local player that has a deep understanding of the market but also a strategic vision that goes beyond the local market. Lack of transparency is characterized by lack of data on performance, lack of data on investments and lack of property rights.

According to Eichholtz (1995), the information issues are more significant if a distinction is made between direct and indirect international real estate investment. Overcoming international barriers, getting local contacts and collecting information in a foreign country turns out to be more expensive in the private real estate markets than in the public real estate securities markets. Eichholtz suggests that institutional and private investors who want to gain exposure to international real estate should buy shares of domestic real estate investment companies at foreign stock markets, reducing the cost of international real estate investment by using the private information that local players have.

Jacques Gordon- , Global Strategist at LaSalle Investment Management, writes that "low transparency" is a euphemistic description of the difficulties in markets that have recently opened up to foreign capital. Asia-Pacific markets such as Hong Kong, Singapore, Seoul, Sydney and Tokyo are more investor friendly.[14]

In countries with underdeveloped capital markets the cost of information is higher than in more transparent markets. This opaqueness creates returns on investment that are not high enough to compensate for the risks associated with the investment. One way to offset this low risk-return ratio is to change the profile of the investment by committing the funds to a longer term. Instead of having 3-5 year horizons the investment should be committed to 10-15 year horizons (Worzala, 1995).

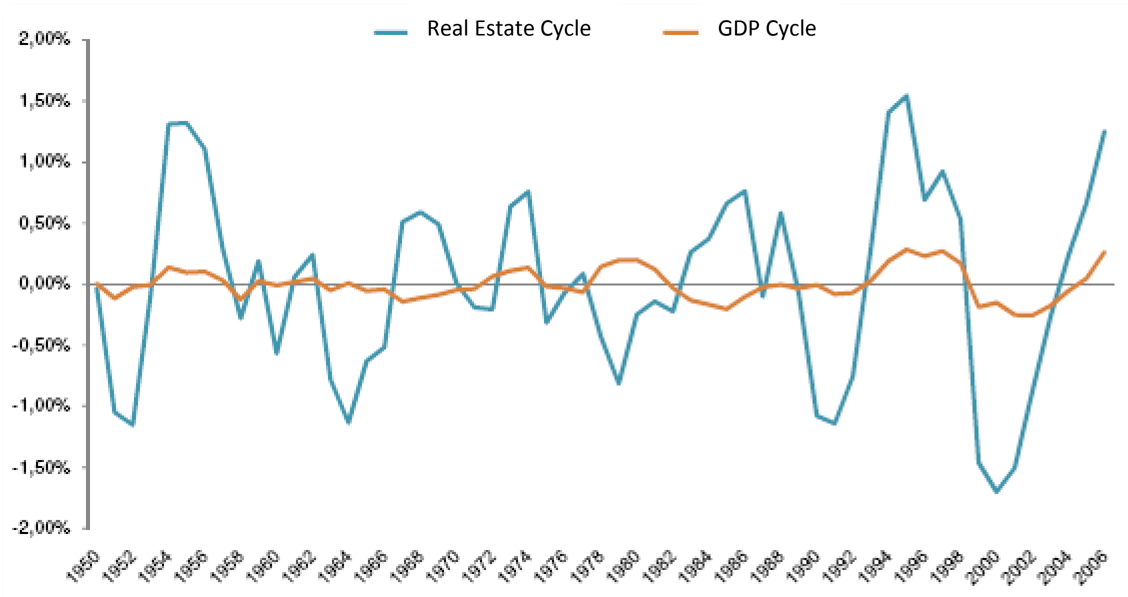
This longer term implies that the investments are not directed to stabilized properties but to strategic markets that have a high degree of potential, like large land holdings for master planned communities, logistics and infrastructure.

3.1.8. Strategic – External: Real Estate Cycle

For markets that lack robust forecasts of future performance the position of the market in the real estate cycle is a good predictor of short-term performance. According to Prudential Real Estate Investors: "*there is a far greater set of opportunities in markets which are in the earlier stages of the cycle than there are in a mature market*" (Conner et al., 1999).

Another variable used as proxy of the real estate market cycle and its future performance is the level of economic activity. Forecasted GDP growth can also be used to predict real estate market performance (Chen and Hobbs, 2003).

[14] Jacques Gordon, Time for an International Approach to Real Estate, Financial Times, 17 January 2008



Source: Camacol 2007. Cycles are calculated as the percentage deviation from the Trendline.

Figure 11 - Real Estate Cycles vs. GDP Cycles in Colombia

Figure 11 depicts the positive correlation between economic activity and the real estate industry in Colombia. It also means that systematic risk or non-diversifiable risk in Colombia should have a large risk premium (Nieto 2007)

Figure 12 illustrates the real estate cycle. Different markets move logically clockwise through the different stages of the cycle. It is important to note that because office markets in Latin America are not synchronized, if the market cycle is properly timed they present and opportunity for diversification.

Source: Jones Lang LaSalle 2007. Latin America City Profile: Bogotá, Colombia.

Figure 12 – Office Real Estate Cycle in Latin America

3.2. Strategic – External: Competitive Structure

Competitive structure can be atomistic and highly fragmented, with many non dominant competitors to oligopolistic or monopolistic in structure. In the case of commercial real estate development in Bogotá the market is highly fragmented.[15]

In Colombia there is no single large developer that is dedicated exclusively to office development. Real estate development in Colombia exhibits largely a herd behavior, where most companies generally follow each other into different markets. After the last bust cycle (refer to Figure 8) that peaked around the year 2001, most companies reactivated operations by building low-income housing projects, fostered by a successful subsidy policy from the government, then they went into residential development, then retail and now office (Nieto, 2005).

Table 7 shows the 10 largest real estate developers in the Colombian market. As of June 2008 all of them are currently involved in housing, retail and office projects. For a detailed list of Colombia´s real estate developers see Appendix D.

[15] Presentation Abacus Capital –Financing alternatives for Real Estate through the Capital Markets – Camacol Bogotá - April 24 2008.

Table 7 – Colombia´s Ten Largest Developer by Assets – Year end 2007 (2,076 COP$:US$)

	NAME	CITY	ASSETS in COP$	ASSETS in US$	SALES in COP$	SALES in US$
1	CUSEZAR	BOGOTA	712.136.570,000	342.993,418	218.766.635,000	105.366,750
2	MARVAL	BUCARAMANGA	578.051.103,000	278.412,501	329.076.801,000	158.496,532
3	CONS. BOLIVAR	BOGOTA	474.511.203,000	228.543,550	254.834.899,000	122.738,667
4	CONS. COLPATRIA	BOGOTA	362.527.628,000	174.607,787	149.103.506,000	71.814,204
5	A. CHAR	BARRANQUILLA	276.622.114,000	133.232,260	79.710.698,000	38.391,856
6	CONCONCRETO	ITAGUI	257.213.164,000	123.884,134	335.970.628,000	161.816,875
7	CONS. MELENDEZ	CALI	227.988.525,000	109.808,381	58.924.792,000	28.380,534
8	MAZUERA	BOGOTA	214.932.713,000	103.520,180	41.486.434,000	19.981,524
9	AMARILO	BOGOTA	148.191.144,000	71.374,774	112.534.018,000	54.200,878
10	GRUPO MONARCA	AMALFI	178.384.508,000	85.917,105	47.661.169,000	22.955,523

Table 8 shows that, compared to the largest developers in other Latin American countries, Colombian companies are relatively small. While CUSEZAR and MARVAL, Colombia´s largest developers by assets, presented at the end of 2007 assets of US $342 million and $278 million respectively, the largest companies in Brazil and Mexico had over US$2 billion in assets each at the end of the same period.

Table 8 – Largest Real Estate Companies in Latin America by Assets End of 2007 (US$ Consolidated)

	NAME	ASSETS in US$	SALES in US$
MEXICO	URBI	2.323.423,58	1.171.485,00
	HOMEX	2.217.417,76	1.487.111,17
	GEO	1.798.500,65	1.372.810,54
	ARA	1.257.608,98	848.611,80
BRAZIL	CYRELA	2.653.689,33	1.000.157,87
	GAFISA	1.561.576,00	396.630,00
	ROSSI	1.249.313,48	432.411,24
	AGRA	909.153,93	169.664,61
PERU	GRAÑA Y MONTERO	382.926,95	480.311,54
	CENTENARIO	140.456,30	2.561,04
	LOS PORTALES	81.657,77	12.736,49
	LP	47.160,77	37.086,72

	NAME	ASSETS in US$	SALES in US$
ARGENTINA	IRSA	802.792,69	129.647,80
	A. PALERMO	571.767,28	73.547,59
	RAGHSA	124.131,52	40.402,30
	EUROMAYOR	111.122,02	6.120,91

Source: ISI Emerging Markets

It is also important to note that most of the companies mentioned above are listed public companies. In Colombia none of the major developers are listed in the public securities market, *Bolsa de Valores de Colombia*, Colombia´s Public Exchange. According to the BVC (Bolsa de Valores de Colombia), MARVAL, Colombia´s largest homebuilder by sales, is participating in a program called *Colombia Capital*, which seeks to familiarize potential issuers in the process of listing their share in the Colombian Exchange.[16]

3.2.1. Strategic – External: Prospective Partners

Direct real estate investment in emerging markets almost invariably requires entering a new market via a partnership (Hines, 2001). Because some of the risks that an international investor finds when entering a new market arise from the lack of local information, one of the best ways to mitigate such risks is by entering in a partnership with a local player.

How do you find the right partners in Colombia? That is the question that most international investors ask before entering the market. The answer depends on the type and nature of the partnership.

A preliminary set of questions to ask a potential partner include:

- How well did the prospective partner manage the past construction crisis? Even though most of the largest developers emerged from the late 90´s crisis with large debt burdens, most of the companies either gave up important assets to clean the balance sheets or reduced their size significantly. ¿Does the company still have pending debts or liabilities form the past crisis?

[16] http://www.colombiacapital.com.co

- How has their financial performance been during the last 5 to 10 years? How well have they managed the recent boom cycle? Have they bought significant land holdings with the proceeds or have they been distributed as dividends?

- What are their plans in the short-, medium- and long-term? On what markets are they focusing? The latest figures, as of June 2008, show a significant decrease in space permitted for residential and office uses.[17] Are they well diversified within Colombia? Are they expanding to other Latin American countries? Of the largest developers, only CUSEZAR has operation in Mexico, Panama and the U.S.

- What is the track record of the partners and their principal managers, ethically, professionally and legally? Do they have major lawsuits pending, criminal convictions, and/or relationships to politicians who are or were under investigation?

- Do they have significant land banks to expand in the future?

- What is their management strategy? Do they apply international best practices to their developments?

3.2.2. Strategic – External: Ownership of Commercial Real Estate in Colombia

In Colombia everyone is in the real estate business, everyone but those who should be.[18] As mentioned by Carlos Rosso, “Latin Americans love real estate” (Rosso and Deal, 2001).

In Colombia residential, retail, offices and even hotel units, almost all the commercial real estate spectrum with the possible exception of industrial facilities, are bought and sold in small pieces, “condominiums” in the United States. The reasons for this behavior seem to be twofold; some reasons can be understood by looking at the developers´ (supply) perspective and some from the buyers´ (demand) perspective.

Developers´ (supply) Perspective

According to several participants in the Colombian real estate market, it appears to be easier to find a lot people with a small amount of money to invest than to find one buyer

[17] http://www.camacol.org.co
[18] Conversations with participants in the Colombian Real Estate Market.

for the whole building. Why? Institutional investors, or what in Colombia are called Qualified Investors – *Inversionistas Calificados* – are not in the real estate business; yet, because the type of product offered is not big enough or valuable enough to be bought by an institutional investor, few office buildings are sold with whole floors as the primary unit; instead they are broken down into average 200 M2 units.[19]

Several risk and return characteristics of real estate development in Colombia are grouped in Table 9**.** It can be inferred from the table that by transferring some of the returns of the project to the buyers, whether end users or speculative investors, the developers can also transfer some of the risks and quickly rotate their capital into new projects.

Table 9 – Commercial Real Estate in Bogotá - Risks and Return Characteristics

Developer	Buyers – End Users or Investors
Land purchase and assembly risks.	Leasing and Occupancy
Market Risks	Stabilization
Engineering and Construction risk	
Return	Return
Income from cash flows	Income from Value Appreciation

The problem seems to lie in the capital structure of the developments. Because of the relatively small size of development firms in Colombia, they are unable to fund the large amount of equity required. The solution is to give up some of the return expected from appreciation by pre-selling relatively small units – on average 80 to 150 M2, or 860 to 1,600 sf – thus securing an important part of the equity required from the prospective buyers.

The upside of this strategy is that very little is built as a speculative investment by the developers. The downside is that, although some of the risks are transferred to the buyers (e.g., leasing risk of the residential, retail or office units), the developers assume almost all construction risk.

Financing at this stage of the project is not usually a problem and most commercial banks offer construction financing for an LTV – Loan to Value ratio – of approximately 50%, with maturities of 18 months and rates between 13-17%. Difficulties arise when a developer needs permanent financing.

[19] Face-to face conversations with participants in the Colombian Real Estate Market.

The market in Colombia for long-term financing is still underdeveloped. Non-recourse financing for large commercial projects is restricted by the banks´ own capital structure. A solution is to syndicate the loan between a group of lenders or securitize it. Even though almost a third of all residential mortgages are securitized, the same does not happen for commercial mortgages.

Buyers (demand) perspective

In Colombia the old myth "we are not in the real estate business," meaning retailers and firms in general, seems to be reversed: "we ARE in the real estate business." Office buildings and shopping centers are owned primarily by their end users; most firms and retailers are in both businesses. They expect cash flows from their business and significant appreciation gains from the ownership of the real estate asset.[20]

From the residential point of view there is a deeply rooted belief in Colombian culture that you have to be the owner of your dwelling. Though it probably does not make economic sense to have all your net worth invested in a single asset, it gives security and is the common currency in Colombia. Mortgages are a very common way to finance consumer spending. If you want to rent an apartment (a condominium) the broker usually requires two co-signers who are owners of real estate.

Even the government´s housing policy is targeted at making Colombia a country of owners "*Colombia un País de Propietarios*" instead of focusing on effectively enabling demand by way of rent subsidies.

The fact that participants in the commercial real estate industry in Colombia understand the need of an alignment with the capital markets was signaled by the occurrence of the seminar *Financing Alternatives for Real Estate through the Capital Markets* held in Bogotá on April 24, 2008. In it, representatives of U.S. private equity firms, Colombian investment advisory firms and financial institutions presented different alternatives for the inception of commercial real estate investment in Colombia. As usual, the Colombian developers were in the audience, and not in the panel.

An important milestone for the industry is the law (*Circular Externa 005/2008*) that allows Colombian pension funds to invest up to 5% of their assets in Colombian private equity

[20] Conversations with participants in the Colombian Real Estate Market

funds. The participants believe that these private equity funds could use the proceeds of pension fund investments to provide long–term capital for commercial real estate projects that exhibit the characteristics of international investments, such as credit tenants with long term leases, and value creation through asset management.

Pension funds assets as of February 29 2008, amounted to COP$61,6 billion (US$33,5 billion)[21], approximately US$1,7 billion could be invested in private equity funds in Colombia, with resources from Colombia.

3.2.3. Strategic – External: The P.E.I a V.I.P - Very Important Player

The significance of PEI cannot be underestimated. The *Patrimonio Estratégias Inmobiliarias* (PEI) is the first Colombian REIT. Although it is not a REIT in the strictest sense of the word, because fundamentally it is not a publicly traded company, its structure resembles that of the Australian Listed Property Trust (LPT). It adapts most of a REIT´s operating characteristics to the Colombian environment.[22]

The PEI in fact is a *Trust*. It utilizes one of the most important figures in the Colombian financial framework the *Fiducia*, or trust fund, administered by a trust company. Trust companies, according to Colombian regulation, may engage in any kind of commercial activity. As is customary under a trust or within a trust company the trustor/grantor conveys his assets to the trustee.

In early 2007 PEI got approval from the government to raise a US$ 250 million program for real estate investment. The first round of capital raised US$50 million from institutional investors; the demand was 4.5 times the offer. Second and third rounds have already been conducted with equal success.

The PEI brings transparency to the market because for the first time ready and credible data is produced regarding commercial real estate investment.

To bring otherwise absent international standards to the market, the PEI measures values in terms of Cap Rates, compares investments taking into account risk premiums, uses

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[21] a billion in Colombia is equivalent to $1,000,000,000,000 (1,000,000 x $1,000,000), in the United States it is $1,000,000,000 (1,000 x $1,000,000). The conversion was done at 1,843COP$: 1US$, the exchange rate on February 29 2008.

[22] www.pei.com.co

asset management to enhance value from properties, and puts in place governance requirements that are a complete novelty. In the words of one international investor, the existence of a vehicle like the PEI, signals to the outside world that the market is not as inefficient as it might have been perceived.[23]

3.2.4. Strategic – External: Current International Investments

As of July 2008, the major international investments in commercial real estate in Colombia are:

- Parque Arauco, shopping malls in Pereira, Caribbean Coast and Medellin.
- Related International, resort development in the Caribbean Coast
- Grupo Roble, from El Salvador, two JW Marriot hotels in Bogotá.

3.3. Internal Strategic Issues and Variables

Type of international investor: Different types of international real estate investors could be interested in analyzing entry into a foreign market. Examples are:

- Private equity firms
- Institutional investors
- Development firms
- Capital providers such as Banks, cross-border mortgage lenders

Organizational structure: The investment in emerging markets part of a global strategy? Does the company have a platform to enter new markets? Does it have experience entering new emerging markets? (Pacek 2007)

Resources commitment factors: The more abundant an investor's resources are, the many more options that she has to enter the new market. If all an investor has is financial capital, his options will probably be narrowed to a passive investment. On the other hand, if a company has resources such as management, capital, technology, production and marketing skills its options are numerous. Also important to note is that the particular entry mode selected is indicative of the degree to which the resources are committed.

[23] Conversations with participants in the Colombian Real Estate Market

Chapter 3 - Chapter Summary

The focus of Chapter 3 has been on the external-uncontrollable issues of strategic origin, particularly those variables that are market-related. The size of the office market in Bogotá was presented and characteristics such as demand and supply were analyzed. Issues such as liquidity, transparency and cyclicality were also addressed and a commentary on special traits of the Colombian real estate markets was presented.

The next chapter focuses on those external-uncontrollable variables that make investing in foreign markets particularly difficult. Chapter 4 will address country risk.

Chapter 4

4. Political (Risk) Analysis

The analysis of the present investment climate in a foreign nation encompasses environmental factors of political, economic and sociocultural nature. These factors have a significant impact on the outcome of the real estate investment/project. The first priority in this regard is to rate the target market according to the political, economic and the business environments (Pacek, 2007).

This step of the process is called Political (Risk) Analysis, because the most important variables to be considered are political in nature; this means that most of the uncertainty in the investment climate is dependent on the behavior of the host government or the general political instability. Whether the "rules of the game" are going to be changed arbitrarily overnight or maintained without disturbance is of fundamental interest for the international investor (Pacek, 2007).

Figure 4 presents the strategic level of analysis with both external and internal groups of variables. The scope of this thesis is to analyze some of the most relevant the external variables.

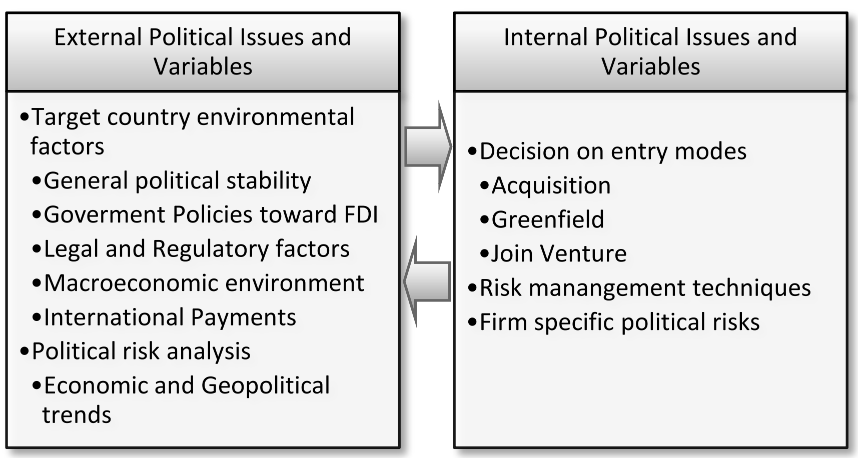
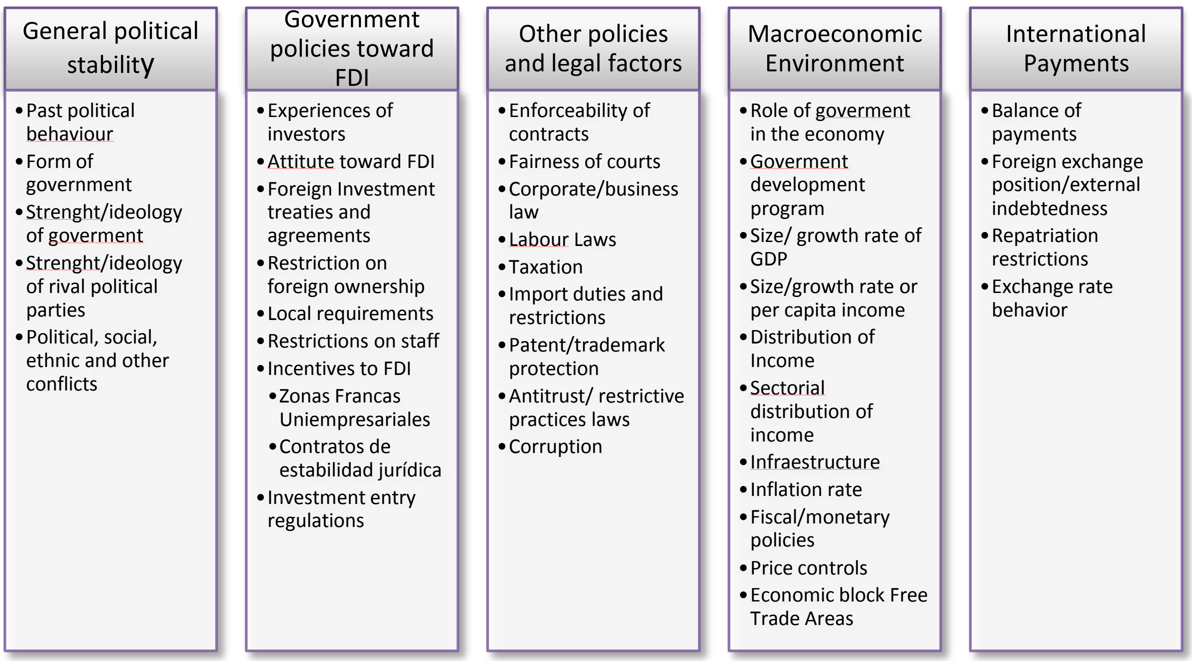


Figure 13 – Political level Analysis – Issues and Variables

Target country environmental variables and issues are a primary concern for the foreign investor entering a new market. Some variables, however, are more significant than others. Figure 14 presents some of the more important factors according to Root (1994).



Source: Root, 1994

Figure 14 – Target Country Environmental Factors

A detailed analysis of all the environmental factors listed in Figure 14 is beyond the scope of this research. Most of these variables can be analyzed by looking at the different rankings and composite indexes that categorize world economies. A list of composite indexes can be found in Appendix C.

In order to concentrate on some of the external issues and variables pertaining to the political level of analysis, selected components of the Colombian political and economic environment will be addressed in the following order:

4.1 General Political Stability
4.2 Macroeconomic Environment
4.3 Economic Free Trade Areas
4.4 Government Policies Towards FDI

4.5 Restriction to Participation on the Economy
4.6 International Payments - Exchange Rate Behavior
4.7 Country Risk
4.8 Internal Political Issues and Variables

4.1. Political – External: General Political Stability

Colombia is known for being the longest running democracy in Latin America. Although suffering from an ongoing civil conflict, as of July 2008 the balance seems to be turning in favor of the government. Insurgent groups were generally influential in rural areas and their activities in major cities are diminishing significantly. For the first time in several decades, it is realistic to expect an end to the armed conflict. Poverty and social exclusion, however, do not seem to be changing; however, their impact is beyond the scope of this research.

4.2. Political – External: Macroeconomic Environment

The size of the economy, the absolute level of performance as well as relative measures can be used as a proxy for real estate performance (Lee, 2005). Table 10 shows the performance of selected macroeconomic indicators for Colombia. Of special interest to the international real estate investor should be the forecasted slowdown in Real GDP growth, which proxies slower growth in real estate performance. In line with worldwide expectations, Colombian GDP growth will slow down for the period 2008-2010, increasing current account balance and the stabilizing of the exchange rate at around $2,000 COP$:US$.[24]

Table 10 – Colombian Macroeconomic Forecasts

	2003	2004	2005	2006	2007	2008	2009
Nominal GDP (US$ bn)	79,4	98,1	122,9	135,8	172,0	222,6	215,4
Real GDP Growth (%)	3,9%	4,9%	4,7%	6,8%	7,5%	4,5%	4,0%
Unemployment Rate (% AVRG)	14,2	13,6	11,8	12,1%	11,2%	10,8%	10,6%
Inflation CPI (%)	6,5%	5,5%	4,9%	4,5%	5,7%	6,8%	4,7%
Current Account Balance (US$ bn)	-0,9	-0,9	-1,8	-3	-5,9	-5,9	-7,7

[24] EUI – Economist Intelligence Unit.

	2003	2004	2005	2006	2007	2008	2009
Current Account Balance (% of GDP)	-1.5	-1.1%	-2,6%	-2,2%	-3,4%	-2,6%	-3,6%
External Debt (year-end; US$ bn)	36,2	37,9	37,7	39,7	41,4	43,1	44,4
Exchange Rate COP$:US$ (AVRG)	2,875	2,628	2,321	2,359	2,076	1,797	1,981
Exchange Rate COP$:US$ (year-end)	2,781	2,390	2,284	2,239	2,015	1,819	2,094

Source: Economist Intelligence Unit

4.3. Political – External: Economic Free Trade Areas

The direct impact of the U.S.-Colombia Trade Promotion Agreement (TPA), pending approval in the U.S. Congress on the commercial real estate market of Bogotá, is debatable. It will, however facilitate the entrance into Colombia of real estate service firms that can lead the way for potential investors. It may also direct real estate investment towards trade-oriented business such as logistics.

The TPA will likely contribute to a more secure and stable investment environment for U.S. investors in Colombia. (USITC, 2006 Pg 6-12). In Colombia, the TPA is called *TLC* (*Tratado de Libre Comercio*).

4.4. Political – External: Government Policies towards FDI

This is an important factor because international real estate investment usually enters in the form of FDI. It could also enter as Portfolio Investment but given the lack of opportunities for indirect real estate investment, that is not an option.

In general Colombia has a favorable climate for foreign investors from a policy perspective. Law N° 963 of 2005 explicitly states the process for a foreign investor to achieve regulatory and legal stability during the course of an investment. The price is 1% of the investment.[25]

Another important component is the 2005 Securities Markets Law, Law N°. 964; it is intended to meet international standards for capital markets regulatory framework.

[25] www.proexport.com.co

Foreign Direct Investment in Colombia

The performance of FDI during the past years is an indicator that international investors perceive better security and opportunities for growth. FDI has been as well one of the major drivers of the currency appreciation, along with commodity prices (oil, gas and coal).

According to the Ministry of Mining 150 oil wells will be out for auction during the next 5 years, with investment inflows of over US$9 billion. This alone guarantees an appreciation of the currency.[26] There is also an important inflow from energy auctions -US$6 billion, and investment in gold and coal. According to former Finance Minister Juan Camilo Restrepo, the only way that you can keep the currency from appreciating under these conditions is by having a fiscal surplus, as in Chile´s case. The world is discovering Colombia and that has an effect.

Latin America has received a steady inflow of Foreign Direct Investment during the last 15 years. Table 11 shows the behavior of this inflow of capital in the region.

Table 11 – Foreign Direct Investment (FDI) in Latin America (in millions of dollars)

	1993 - 1997 a[27]	1998 - 2002 a	2003 - 2007 a	2006	2007
Latin America	38.342	74.310	72.254	72.585	105.925
Mexico	10.681	18.946	20.594	19.211	23.230
Brazil	8.015	26.463	19.345	18.782	34.585
Chile	3.332	5.000	8.056	7.358	14.457
Colombia	**2.410**	**2.290**	**6.094**	**6.464**	**9.028**
Argentina	5.629	9.202	4.360	5.037	5.720
Peru	2.443	1.539	2.864	3.467	5.343

Source: ECLAC

Table 12 shows the projected inflow of Foreign Direct Investment into Colombia during the year 2008. It represents a new record level for the country.

[26] *Portafolio* – Colombian economic newspaper – July 6 2008
[27] (a) Yearly Averages

Table 12 – FDI Announcements in Colombia for 2008 (in millions of dollars)

Investor	Industry	US $ Millions
Oil Exploration	Oil Exploration	4.000
General Electric	Diversified	1.000
SAB Miller	Beer/Beverages	1.000
AngloGold	Mining/Gold	800
Cartagena Refinery	Oil Refining	800
Endesa/Emgesa	Energy	500
Drummond	Coal	400
Biofuels	Biofuels	400
Cencosud/Éxito	Retail	300
Bellhaven	Mining/Gold	250
Vale/Alcoa	Energy	200
The Related Group	Real Estate	200
Frompeca	Tourism	128
Cable TV	Cable TV	117
B2Gold	Mining/Gold	100
Gerdau/Cleary	Steel	59
	Total	10.254

Source: Proexport

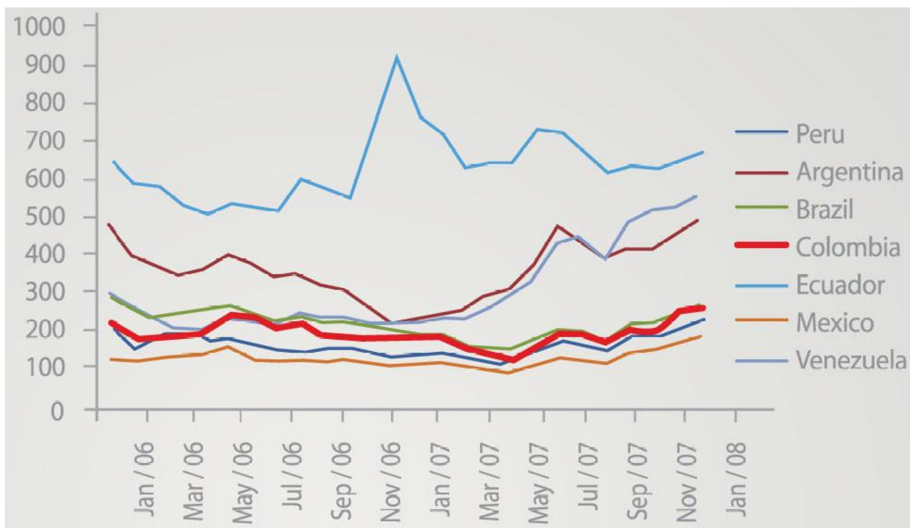
One obstacle for FDI in Colombia is the marginal deposit that an investor has to make, 50% of the value of the investment during 6 months at 0% in the central bank (*Banco de la República*).

4.5. Political – External: Restrictions to participation in the economy

In general in Colombia there are no restrictions to foreign ownership of business and real estate in particular. The constitution, however, does establish certain restrictions regarding the operation of financial institutions, such as banks, brokerages or insurance companies. In particular, any financial business that receives money from the general public must have permission from the regulatory agencies.

4.6. Political – External: International Payments - Exchange Rate Behavior

Colombia has never defaulted on its international financial responsibilities. This behavior has resulted in relatively low risk premiums for Colombian sovereign debt[28]. Figure 15 depicts the risk premiums in basis points over U.S. Treasury bonds for sovereign country debt in Latin America. This is important because international real estate investors can use this risk premium to calculate their own hurdle rate for an investment in Colombia, in this case around 200 basis points.



Source: Proexport

Figure 15 – EMBI Risk Premiums for Latin America basis points over U.S. Treasury Bonds.

Exchange rate behavior is one of the most important variables for the international real estate investor. Cross-border investment implies not only a focus on cash flow patterns such as income generation and capital appreciation, but also on the behavior of currency rates and their impact on expected risk-adjusted returns (Johnson et al., 2006).

At par with its importance is its unpredictability. Factors such as a weak U.S. dollar, spreading interest differentials between Colombia and the US (the Colombian central bank lending rate was hiked 75bps to 10% at the end of July 2008), record oil export earnings

[28] www.proexport.com.co, *Invest in Colombia, discover the reasons why June 2008.*

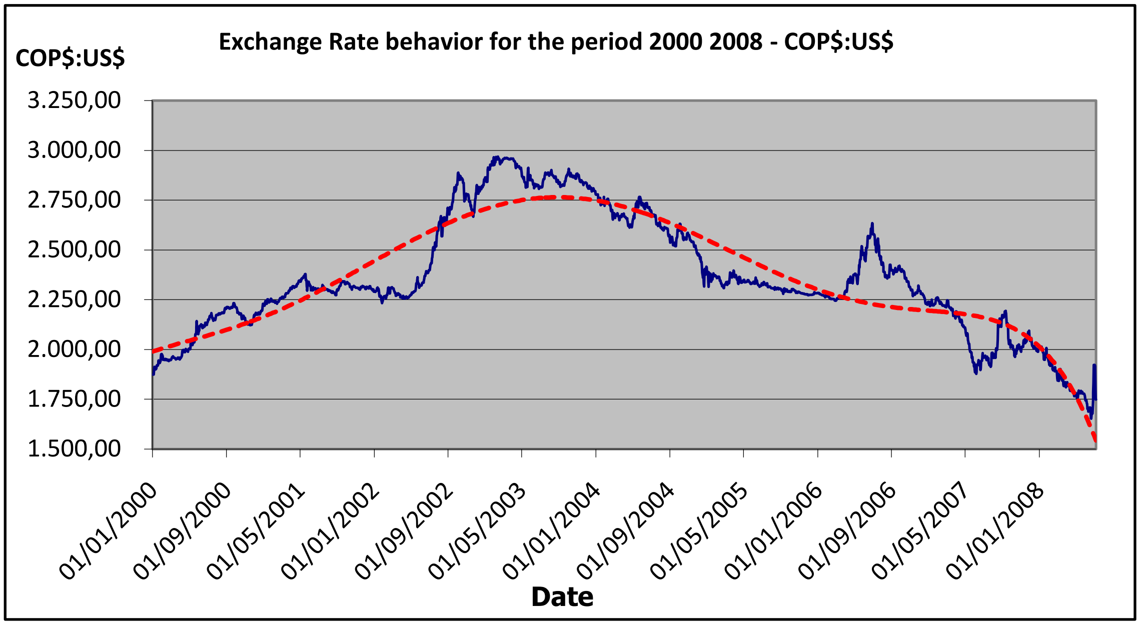
and high prices of exported commodities, and strong FDI inflows have caused the Colombian peso (COP$) to appreciate significantly during the past 5 years. Table 13 and Figure 16 show explicitly this behavior, and gives the international real estate investor an idea of the type of volatility in the exchange rate that she must expect.

Volatility also seems to be a problem with the Colombian peso; it reacts quickly to country risk news. Factors such as a widening current-account deficit, weaker GDP growth and some recovery of the U.S. dollar will likely devaluate the COP$ during the period 2009-2010 (EIU, 2008).

Table 13 – Exchange Rate Averages and end of Year Values COP$: 1US$

Date	COP$: 1 US$
December 31, 1999	1.873,77
December 31, 2000	2.229,18
Average 2000	2.088,14
December 31, 2001	2.291,18
Average 2001	2.300,10
December 31, 2002	2.854,29
Average 2002	2.506,55
December 31, 2003	2.780,82
Average 2003	2.875,91
December 31, 2004	2.389,75
Average 2004	2.628,06
December 31, 2005	2.284,22
Average 2005	2.321,49
December 31, 2006	2.238,79
Average 2006	2.358,96
December 31, 2007	2.014,76
Average 2007	2.076,24
Average 1Q 2008	1.910,78
Average 2Q 2008	1.767,60
Average 1H 2008	1.839,19

Figure 16 – Exchange Rate Behavior for the Period 2000-2008



Source: Banco de la República – Central Bank of Colombia.

Some financial techniques used to mitigate currency and exchange rate risks are: using currency options/futures contracts, using financing from overseas banks, using financing from domestic banks and/or reinvesting funds in the same country. According to Worzala (1997), even though hedging can be expensive it is sometimes used to hedge the cash flow, not the entire investment. Given the uncertain characteristics and long-term horizons of real estate investment, hedging does not seem to be an appropriate measure.

From 2003 through 2008, the monumental trade deficit of the United States along with geopolitical factors has weakened the US Dollar to levels that were unimaginable in the past. Any hedge against currency devaluation outside of the US would have been disastrous for the US investor. For example pegging the income and value of the properties to US dollar denomination would have had negative returns in most countries since the currencies appreciation for Pound Sterling, Euro and most Latin American currencies has been around 30% during the past 3-5 years.

A tactic that is sometimes used to finance investments in international real estate is to leverage the project in the local denomination and take advantage of interest rate differentials across-countries (Hines, 2001).

4.7. Political – External: Country Risk

The Economist Intelligence Unit (EIU) rates countries according to a sovereign risk index that measures the risk of a build-up in arrears of principal and/or interest on foreign, and/or local currency debt that is the direct obligation of the sovereign (EIU, 2008, Retrieved July 2008 – www.eiu.com).

It is important to note that political risk insurance can be purchased from institutions such as the Overseas Private Investment Corporation (OPIC), AIG Global and Lloyds of London. It covers risks such as inconvertibility, expropriation, and war, revolution, and insurrection. (Root, 1994)

Table 14 shows the country sovereign ratings for Latin America prepared by the Economist Intelligence Unit. For a list of 120 countries see Appendix C. Colombia ranks among the safest in Latin America with regards to sovereign debt. This serves as a benchmark for international real estate investors as to the stability of Colombia´s system of international payments.

Table 14 – Country Sovereign Ratings for Latin America – June 2008

Country Sovereign Rating for Latin America- June 2008			
Country	**Data For**	**Rating**	**Outlook**
Argentina	Jun-08	B	Stable
Bolivia	Jun-08	B	Stable
Brazil	Jun-08	BB	Stable
Chile	Jun-08	A	Stable
Colombia	**Jun-08**	**BB**	**Stable**
Ecuador	Jun-08	CCC	Stable
Mexico	Jun-08	BBB	Stable
Panama	Jun-08	BB	Stable
Paraguay	Jun-08	B	Stable
Peru	Jun-08	BBB	Stable
Uruguay	Jun-08	BB	Stable
Venezuela	Jun-08	B	Stable

Source: EIU

4.8. Internal Political Issues and Variables

Having analyzed the different issues and risks that might be faced during the course of the investment, the investor must make decisions about the different risk management techniques that will be used.

Risk management in essence is the systematic process of identifying, analyzing and responding to project risk. It includes maximizing the probability and consequences of positive events and minimizing the probability and consequences of negative ones. Part of this process involves developing options and determining actions that enhance opportunities and reduce threats.

Also as outlined by the Project Management Institute, there are several tools and techniques that can be used in risk management (Project Management Body of Knowledge, 2007). Fundamentally a risk can be: avoided, transferred, mitigated or accepted.

Chapter 4 - Chapter Summary

Chapter 4 has presented an analysis of selected political and economic variables that impact the investment climate in Colombia. Of particular interest to the international real estate investor is the projected behavior of certain indicators such as real GDP growth, current account deficit, exchange rate levels and particular policies and attitudes toward Foreign Direct Investment in Colombia.

In the following chapter, the economic level of analysis is presented. This completes the strategic framework for investment in emerging markets. It analyzes the financial viability of any given proposal by gauging its economic soundness. The economic level of analysis does so by presenting benchmarks for financial performance regarding the prices, returns and capitalization rates of property in the market.

Chapter 5

5. <u>Economic (Risk) Analysis</u>

This level of analysis attempts to underwrite the project from a micro-level perspective. It is where the financial analysis of the proposal is carried out, and once again the two dimensions of analysis must be aligned in order to arrive at plausible outcomes.

Individual deal structure can have a significant impact on the amount of risk that the investment bears. It is in this level of analysis where the investment decision is put to the ultimate test. The fundamental question in this type of analysis is Does the investment meet the desired financial objectives?

The alignment of issues at the economic level of analysis is depicted in Figure 17a**.** It is clear that the external uncontrollable variables determine the outcome of the investment.

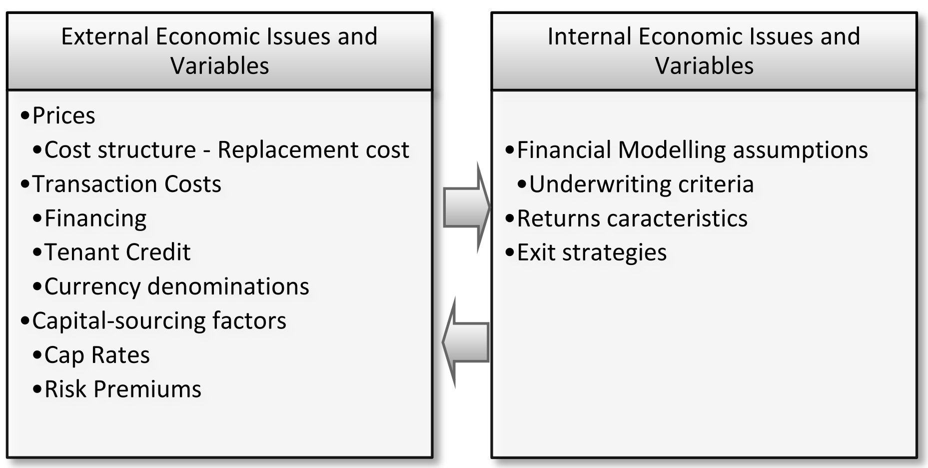


Figure 17a - Economic level Analysis Issues and Variables

In order to concentrate on some of the most relevant the external issues and variables pertaining to the economic level of analysis, selected characteristics of the commercial real estate market for class A+ office space in Bogotá are addressed in the following order:

5.1 Prices
5.2 Real Estate Financing in Colombia.
5.3 Capitalization Rates

5.4 Risk Premium

External Economic Issues and Variables

- Prices
- Financing
- Capital-sourcing factors
  - Cap Rates
  - Risk Premiums

Figure 17b – Selected Economic level Analysis Issues and Variables

Figure 17b show the variables that will be addressed. These are the most important variables because they have the greatest impact on the financial performance of the investment.

5.1. <u>Economic – External: Prices</u>

As an example of the how the price of office space has behaved in Bogotá, during the last 10 years Figure 18 presents both the movements of the price per square meter of Class A+ office space in Bogotá and the quarterly percentage changes during that period. In line with the behavior of the real estate market in Colombia the lowest price per square meter was quoted at the end of the year 1999, also the lowest point in the property crisis. During the last ten years these prices have increased at a Compound Annual Growth Rate (CAGR) of 5.41%.

Bearing in mind that the period includes both the downside of one cycle and the upside of the next one a CAGR of 5.41% compared with the CAGR of inflation (CPI) for the same period of 7.58% seems like a low number. However, during the last 5 years, (2003-2007), the upside of the last cycle property cycle, CAGR of Class A+ office space has been 10.47% compared to a CAGR of inflation (CPI) of 5.40%. Refer to Appendix G for details of these calculations.

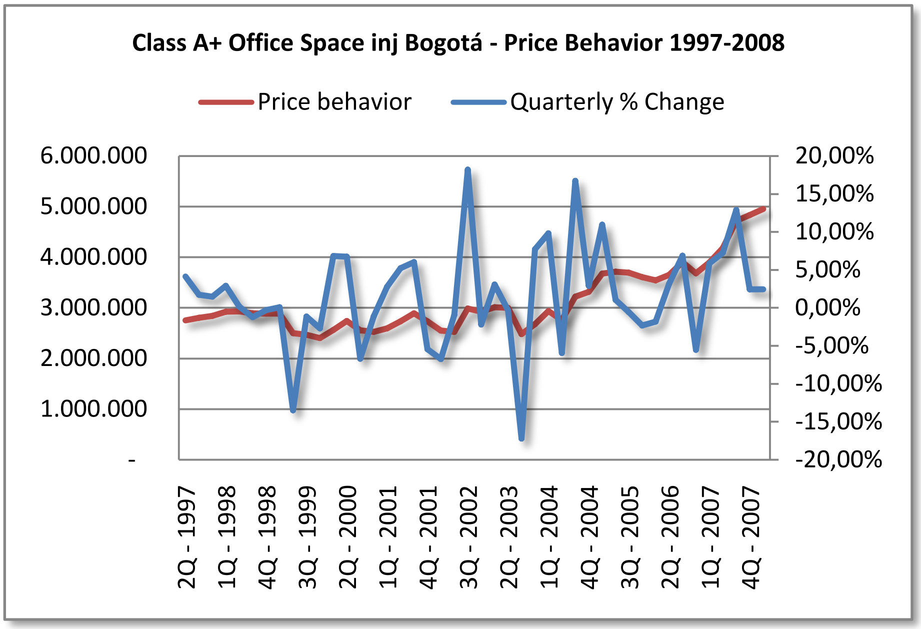


Figure 18 – Price behavior of Class A+ Office space in Bogotá 1997-2008

5.2. <u>Economic – External: Real Estate Financing in Colombia</u>

The Colombian real estate industry suffered one of its deepest crises at the end of the 1990´s. It is referred to as the "UPAC Crisis" because of the indexing system that was used before 2000 (UPAC means *Unidad de Poder Adquisitivo Constante* translated as Constant Purchasing Power Unit, and was replaced by the UVR *Unidad de Valor Real* or Real Value Unit in early 2001).

Although some of the effects of the UPAC Crisis can still be felt in some areas (real estate prices in real terms are still much lower than those reached in 1996). One of the positive outcomes of the crisis is that it changed the way real estate projects are financed in Colombia. Most real estate projects in Colombia are pre-sold, there is seldom speculative development, and in general terms projects are not started until they have achieved financial solvency (equilibrium point) (Nieto, 2005).

The value of transactions from the Superintendencia de Notariado y Registro (Superintendence of Notary and Registry of Deeds) has to be taken with a grain of salt. The custom in Colombia is to register a real estate transaction for the fiscal value of the asset, and thereby evading taxes on capital gains. The rest of the value is paid "under the table." This custom, however, might not apply for institutional transactions or large companies because better governance and accounting practices imply registration of a complete transaction.

5.3. Economic – External: Cap Rates

Individual properties and buildings differ in size and magnitude. When speaking of property prices and values in general it is common to think in terms of *property value per dollar of current net rent or income.* In commercial real estate is common to use a measure that is the inverse of this price/earnings multiple, this measure is called capitalization rate or **cap rate** for short (Geltner et al. 2007).

Cap rates are similar to current yields because they measure the amount of current income, in annual terms, and therefore are direct measures of the current component of the return of the investment. Also they measure inverse of the asset value. See Figure 19**.**

$$\boxed{Cap\ rate = Net\ rents\ /Property\ value}$$

Figure 19 – Capitalization Rate Equation

In Colombia, thinking and talking about cap rates is a novelty. Prices are most usually quoted in *pesos per square meter* and rents in terms of *gross rent per square meter per month*. This is evidence of several traits of the Colombian real estate market. The first trait is the absence of active institutional investors in the market. Qualified or sophisticated investors use this terminology to better gauge prices in the market. The second trait is the relative illiquidity of the market. Cap rates initially do not mean much when the buyer is the end-user of the space. For the end-user the important information is the cost of buying the space and not so much the cost of using it; when you are renting the space, what matters to you in the cost of using it instead of the value of the property.

A third trait that the lack of cap rate terminology reflects is the lack of professional asset management in the market. Real estate investment in Colombia still has a road ahead to implement international standards in its management practices. Rent is thought of as gross rent instead of net rent, because the intermediary that stands between these two measures, the asset manager, has a relatively modest function in the Colombian market.

According to Geltner et al. (2007), the cap rate is determined by capital investment supply and demand in the asset market, based on three major factors:

1. Opportunity Cost of Capital
2. Growth Expectations
3. Risk

The exercise of finding a cap rate for class A+ office space in Bogotá is shown in Figure 20. Assuming for the case of class A+ office space an average monthly rate per square meter of $52,300 COP$/M2, the gross annual income per square meter will be $627,600 COP$/M2. Subtracting 1% of the per square meter value for property taxes $49,500 COP$/M2 and 10% of annual gross income for operating expenses (OPEX) such as: insurance costs, industry and trade tax, asset management fees, and other fees (legal advice and fiduciary fees) $62,760 COP$/M2, Net rent per square meter is $515,340 COP$/M2 divided by the per square meter price $4,950,000 COP$/M2, results in a cap rate for class A+ office space in Bogotá of 10.41%.

Average monthly rents	52.300 X 12	627.600
- Property taxes	1% of appraised value	49.500
- Operating Expenses	10% of gross rent	62.760
= Net Rent		515.340
÷ Average price per square meter		4.950.000
= Cap Rate		**10,41%**

Figure 20 – Capitalization Rates for Class A+ Office Space in Bogotá

With regards to the components of cap rates several comments are valuable at this stage of the real estate cycle. In relation to the opportunity cost of capital, financing rates in Colombia have reached at the middle of 2008, a five-year high. The *DTF* rate (*Depósitos a término fijo*), which is used as a benchmark for deposit returns, is around 10% per annum. Commercial lending rates are usually quoted as 500 to 800 basis points above this rate. At an average rate of DTF + 6% or approximately 17% per annum, there is little point in leveraging a gross yield of 10.41%.

Furthermore, taking into account a significant appreciation of the value of the property at the reversion value, of close to 7% per annum, an increase of rents of 5% every year and a reversion cap rate of 8%, Figure 21 presents how investment in commercial real estate in

Bogotá as of July 2008 will produce an unlevered IRR of 16.4%. With lending rates at around 18%, there is negative leverage.

	1	2	3	4	5	6	7	8	9	10
Income appreciation		5%								
Value appreciation		7%								
Reversion cap rate		8%								
AVR M Rent	627.600	658.980	691.929	726.525	762.852	800.994	841.044	883.096	927.251	973.614
Property Tax	49.500	52.965	56.673	60.640	64.884	69.426	74.286	79.486	85.050	91.004
OPEX	62.760	65.898	69.193	72.653	76.285	80.099	84.104	88.310	92.725	97.361
Net Rent	515.340	540.117	566.064	593.233	621.682	651.469	682.653	715.300	749.476	785.248
AVG $/M	4.950.000	5.296.500	5.667.255	6.063.963	6.488.440	6.942.631	7.428.615	7.948.618	8.505.022	9.100.373
Cap Rate	10,41%	10,20%	9,99%	9,78%	9,58%	9,38%	9,19%	9,00%	8,81%	8,63%
Investment		-4.950.000								
Reversion										9.815.606
Cash Flow	515.340	540.117	566.064	593.233	621.682	651.469	682.653	715.300	749.476	10.208.230
Unleveraged IRR		16,40%								

Figure 21 – Projection of an Investment in Class A+ Office Space per Square Meter

According to the PEI, cap rates in Colombian commercial real estate are in the vicinity of 12-14%, but they are compressing, because, for a very specific type of demand there is not enough stock being built. This analysis of cap rates components of total return result in cap rates compression because multinationals and large corporations need single-owner space of 2,000 M2 and above. This will mean that investors in Bogotá are willing to pay higher prices for less income (Journal of Portfolio Management, October 2007 Real Estate Issue)

5.4. Economic – External: Risk Premiums

With regards to risk premiums, the most basic questions are: What are the risk premiums in the market right now? What components do they reflect and to what magnitude? What are the different premiums for country risk, currency risk, degree of market transparency and basic real estate fundamentals?

Literature on the topic of international real estate risk premiums is varied. LaSalle Investment Management (2000), Chen and Hobbs (2003), Liang and McIntosh (2000), Dockser et al (2001), and Lee (2005) among others attempt to calculate an approximate measure of the risk premium for the investors´ *Hurdle Rate*. In *Myths and Realities of International Real Estate Investment*, Conner et al. (1999) argue that over the long-run foreign risks premiums tend to converge in countries with similar characteristics.

In the U.S. real estate investors have grown accustomed to categorize investments along the risk-return continuum as Core, Value-Added and Opportunistic (Lowrey, 2002). Core Investments are mature (expecting steady income but low appreciation), fully leased income-producing properties, with a relatively strong position in their market. Value-added investments rank higher in the risk-return spectrum, involving development, repositioning, and lease-up, and expect both income generation and capital appreciation. Opportunistic investments located at the highest level of the risk-return range, may involve taking advantage of market and asset mispricing, in capital constrained environments and with the use of significant leverage. Opportunistic investments expect a significant capital appreciation.

Prudential Real Estate Investors use a systematic approach similar to that employed in the U.S. to classify international real estate markets. Table 15 shows the classification. By adding the dimension of country risk, and oversimplifying, foreign markets can be categorized as: core, core plus and emerging markets. Core markets are well developed markets, fully integrated into the global capital markets and with a low long-term county risk, like the U.S., U.K., Germany and Japan. Core plus markets have a higher country risk, like Singapore, Spain, Hong Kong and Ireland. Emerging markets have the highest degree of country risk.

Table 15 - Expected Risk-Return Matrix for International Real Estate Investments in 2002

	Investment Risk					
Country Risk	Core		Value Added		Opportunistic	
	2002	2006	2002	2006	2002	2006
Emerging	**16%**	**12%**	**19%**	**14.5%**	**26%**	**19.5%**
Maturing	12%	9%	15%	11.5%	22%	16.5%
Core	10%	7.5%	13%	10%	20	15%

Source: Prudential Real Estate Investors (Lowrey, 2002), (Liang and McIntosh, 2000), (Conner and Liang, 2006)

From the above table, it can extracted that Colombian real estate conforms to the higher tier of country risk, categorized by Prudential RE Investors as emerging. Opportunities in the country will be divided among the different types of investment risk, but certainly core opportunities will be hard to find.[29]

[29] Conversations with participants in the Colombian Real Estate Market.

The PEI is creating opportunities in core real estate Investment opportunities by assembling a portfolio of well located properties and signing long-term leases with credit tenants, their expected initial yield of 15.5%[30], with an income generating component of 11.5% and capital appreciation of 4%, are in line with the risk adjusted matrix of returns proposed by *Prudential Real Estate Investors*.

5.5. Internal Economic Issues and Variables

Financial modeling assumptions: Financial models and projections are only as good as the assumptions behind them.

The more realistic and comprehensive the financial model gets, the better for the investment decision makers.

Exit Strategies: An important consideration before the investment is made and large resources are committed is the exit strategy considered. It has to align with the opportunities for exit that the market currently offers or that will realistically offer in the future.

[30] Estrategias Corporativas – *Presentación Patrimonio Estrategias Inmobiliarias*, February 2007 - Returns are expressed in COP$

Chapter 6

6. Conclusions - Opportunities in the Colombian Real Estate Market

Having conducted the present research, it is time to answer several of the questions posed at the beginning of the thesis.

What are the implications for the international real estate investor? The implications for the international investor are manifold. Having researched some of the relevant variables for international real estate investors entering the Colombian market, one finds that they are common-place in almost all markets, regardless of the stage of development of the economy. For instance, currency risk seems to be of capital importance, especially because a significant part of the returns in international real estate investment comes at reversion. When reversion happens 3 to 5 years into the future, any exchange rate risk mitigation strategy is very difficult to implement.

International investors could also bring a type of capital that is more appropriate for real estate development financing, introducing commercial property loans with long-term timeframes and rates that match international standards.

The entrance of international real estate investors to the Colombian market will most probably be done through partnerships, mainly because of the lack of local knowledge and information, the benefits of this synergy also arise from the perspective, knowledge and capital that foreign investors will bring to the market place.

On the other hand, it is clear from this research that although information gathering in a foreign market is more difficult for non-domestic participants, Colombia has sufficient available information sources to help make initial entry enquiries. Partnering with a local company that has financial strength, impeccable reputation, good connections and, above all, a forward-looking management is a must in the country.

The fact that some companies, such as Pix Investments, Patrimonio Estratégias Inmobiliarias PEI and Abacus Capital, value investments in terms of cap rates, rate projects as Core, Value-Added or Opportunistic and have significant connections with international players give the impression to foreign participants that the market is not as inefficient as it might appear from the outside.

What opportunities arise in the Colombian real estate market and what are the risks of investing in the country? The opportunities for international investors in the Colombian real estate market are varied. In particular the office market brings the chance to develop large office space dedicated for top national or multinationals firms that require over 2,000 M2 (21,500 sf) in single owned, asset managed buildings located close to the airport.

Urban renewal in Bogotá brings other challenges and opportunities, because this is a type of development that has not been attempted in large-scale in the past. The local knowledge is limited and biased by a certain clinging to the past. Successful urban renovation takes not only large resources but also visionary thinking that infuses with a new spirit large run-down areas of the cities. International investors could certainly bring both. The opportunities not only arise from the fact that with economic and demographic growth comes greater property demand (Geltner et al., 2007), but also because historically low quality buildings will be replaced by redevelopment efforts.

Outside of Bogotá mainly resort and second-home development in the Caribbean coast appears to be feasible. The latter taps a larger market that not only includes Colombian but also international buyers. According to PROEXPORT, the number of foreign visitors to Colombia has doubled in the past 7 years, from 1 million in 2000 to 2.1 million visitors in 2007. The goal is 4 million tourists by the year 2010.[31]

Because of the underdeveloped infrastructure, some of the largest and most profitable opportunities arise in public-private partnerships for the development of highways, tunnels, bridges, airports and seaports. Although not directly related to their core business, this where the largest Colombian real estate developers are heading.

The real estate investors that might lead the way into the market could be the global advisory service providers; companies like CBRE, Jones Lang LaSalle or Tishman Speyer could start by underwriting the market, making local contacts and attract the international clients.

For an international real estate company that has varied competencies in the real estate business, the research suggests that one of the best ways to enter the country will be to install first a relatively low-cost operation that provides professional services that are

[31] www.proexport.com.co, *Invest in Colombia, discover the reasons why June 2008*.

novel to the country. For example, in Colombia there is not a clear distinction between asset management and property management.

With regards to the particular market under study, a simple exercise in real estate investment valuation showed an unleveraged IRR of 16% in COP$ for a Class A+ office space in Bogotá. But, will the prices in this market continue to rise as they have for the past 5 years? Will rents stay at the same level when there is an area equal to 30% of the current stock ready to enter the market in the next 2 years? Will, after 5 years rising, the upside of the cycle come to a halt? Are the slowing signs of the Colombian economy a cause for worry?

These are some of the assumptions about the future that the investor has to make. The assumptions after all, is all you buy when you buy real estate, remember Graaskamp?

Real estate investment in Colombia, demands caution, it is not for the faint of heart. Many opportunities will arise in the future because markets in Colombia are generally underserved, and the quality of development is not up to international standards. But, a thorough analysis of the future performance of key variables is necessary so that expectations are in line with what the markets can realistically offer.

An impassionate balanced approach to invest in Colombian real estate is recommended. A visionary long-term view of the opportunities that the country offers will render the greatest returns. An honest heartfelt desire to invest in the Colombian future will be more that welcomed.

Bibliography

Agarwal, S., & Ramaswami, S. N. (1992). Choice of foreign market entry mode: Impact of ownership, location and internalization factors. *Journal of International Business Studies, 23*(1), 1-27.

Arnold, D. J., & Quelch, J. A. (1998). New strategies in emerging markets. *Sloan Management Review, 40*(1), 7.

Baum, A. and Wurtzebach, International Property Investment, in S. Hudson Wilson and C. Wurtzebach, editors, *Managing Real Estate Portfolios,* New York: Irwin 1993.

Baum, A. (1995) *Can Foreign Real Estate Investment be successful*? *Real Estate Finance, 12*(1) 81-89

Bhambri, A. (1991). *Strategies and structure of real estate development firms: Lessons from management research* Urban Land Inst.

Brigard y Urrutia Abogados. (2006). *Guide to doing business in Colombia*. Bogotá, Colombia: Retrieved from http://www.lexmundi.com/images/lexmundi/PDF/guide_colombia.pdf

Brown, S. J., & Liu, C. H. (Eds.). (2001). *A global perspective on real estate cycles*. Boston: Kluwer Academic Publishers.

Cámara Colombiana de la Construcción - CAMACOL. (2007). *La edificación en Colombia: Situación actual y perspectivas*

Cámara Colombiana de la Construcción - CAMACOL. (2008). *Competitividad de la Actividad Constructora de Edificaciones en Colombia- Bogotá.*

Cárdenas, M. *FDI Investment in Colombia*. – Fedesarrollo (2007) – Bogotá.

Cateora, P. R. (Ed.). (1993). *International marketing* (8th ed.). Homewood, IL: Irwin.

Cavusgil, S. T. (1997). Measuring the potential of emerging markets: An indexing approach. *Business Horizons, 40*(1), 87-91.

Cavusgil, S. T., Ghauri, P. N., & Agarwal, M. R. (2002). *Doing business in emerging markets : Entry and negotiation strategies*. Thousand Oaks: Sage Publications.

Chan, K. C., Hardin III, W. G., Liano, K., & Zheng Yu. (2008). The Internationalization of Real Estate Research. *Journal of Real Estate Research, 30*(1), 91-124.

Chen, J., & Hobbs, P. (2003). Global real estate risk index. *Journal of Portfolio Management, 30*, 66-75.

Clayton, J., Gordon, J., Fabozzi, F., Giliberto, S. M., Liang, Y., & Hudson-Wilson, S. (2007). Real Estate Comes of Age. *Journal of Portfolio Management, 33*, 15-26.

Colliers International. *The Knowledge Report* – Offices Bogotá Fourth Quarter 2008 – Bogotá, Colombia. Retrieved from ISI Emerging Markets June 2008.

Comisión Económica para América Latina y el Caribe (CEPAL). *La inversión extranjera en América Latina y el Caribe 2007*

Conner, P., & Liang, Y. (2006). Ask not why international, ask why not international. *Prudential Real Estate Investors,*

Deutsche Bank. (2008). *Brazilian homebuilding report*

Dockser, B. H., Rosen, K. T., & Van Dyke, D. T. (2001). Opportunistic real estate investors need global perspective. *Pensions & Investments, 29*(22), 42.

Doh, J. P., Rodriguez, P., Uhlenbruck, K., Collins, J., & Eden, L. (2003). Coping with corruption in foreign markets. *Academy of Management Executive, 17*(3), 114-127.

Economist Intelligence Unit (EUI), *Country Report Colombia* – August 2008

Elstrodt, H. (2007). What executives are asking about Latin America. *McKinsey Quarterly,* , 23-31.

Estrin, S., & Meyer, K. (Eds.). (2004). *Investment strategies in emerging markets*. Cheltenham, UK ; Northampton, MA: Edward Elgar.

Feller Rate. (2008). *Sector Inmobiliario y Construcción en chile*

Fernandez, E. J. (1992). International real estate development-Mexico as an example. (M.S., Massachusetts Institute of Technology, Dept. of Urban Studies and Planning). , 71.

Ganster, M. (2007). Opportunities and challenges of investing in emerging markets : A case study of panama. (S.M. in Real Estate Development, Massachusetts Institute of Technology, Dept. of Urban Studies and Planning). , 71.

Geltner, D. (2007). *Commercial Real Estate Analysis & Investments* ([2 ., student .] ed.). Mason, OH: Thomson.

Geltner, D. M., (1989). Risk and returns in commercial real estate : An exploration of some fundamental relationships. (Ph. D., Massachusetts Institute of Technology, Dept. of Civil Engineering). , 276.

Graaskamp, J. A., & Jarchow, S. P. (1991). *Graaskamp on real estate*. Washington, D.C.: ULI-the Urban Land Institute.

Hastings, A., & Nordby, H. (2007). Benefits of global diversification on a real estate portfolio. *Journal of Portfolio Management, 33*, 53-62.

Hines, M. A. (2000). *Investing in international real estate.* Greenwood Publishing Group.

Hines, M. A. (1984). *International income property investment*. Scottsdale, Ariz.: Published by Todd in cooperation with the International Institute.

Hoskisson, R. E., Eden, L., Lau, C. M., & Wright, M. (2000). Strategy in emerging economies. *Academy of Management Journal, 43*(3), 249-267.

Idzorek, T. M., Barad, M., & Meier, S. L. (2007). Global commercial real estate. *Journal of Portfolio Management, 33*, 37-52.

Jaffe, A. J., & Louziotis Jr, D. (1996). Property rights and economic efficiency: A survey of institutional factors. *Journal of Real Estate Literature, 4*(2), 137-159.

Johnson, R., Lizieri, C. M., Soenen, L., & Worzala, E. M. (2006). Simulating currency risk on private investments in real estate. *Journal of Real Estate Portfolio Management, 12*(2), 91.

Jones Lang LaSalle - LaSalle Investment Management. (2000). *Investment strategy annual 2000*

Kateley, R. (2002). Managing international risk: Practical considerations for direct investors. *PREA Quarterly, 14*(1), 31–35.

Khanna, T., Palepu, K. G., & Sinha, J. (2005). Strategies that fit emerging markets. *Harvard Business Review, 83*(6), 63-76.

Kroll, C. A., & Bardhan, A. (2007).
Globalization and the real estate industry: Issues, implications, opportunities.

LaPier, T. (1998). *Competition, growth strategies, and the globalization of services : Real estate advisory services in Japan, Europe, and the United States*. London ; New York: Routledge.

Lee, S. L. (2005). Gauging the investment potential of international real estate markets.

Liang, Y., Conner, P., & McIntosh, W. (1999). Myths and realities of international real estate investing. *Prudential Real Estate Investors,*

Liang, Y., & McIntosh, W. (2000). Country risk premiums for international investing. *Prudential Real Estate Investors* . 2–13.

Lim, L. C., McGreal, S., & Webb, J. R. (2006). Perception of real estate investment opportunities in Central/South America and Africa. *Journal of Real Estate Portfolio Management, 12*(3), 261.

Lim, L. C., McGreal, S., & Webb, J. R. (2008). Institutional benchmarks for international real estate investment. (cover story). *Journal of Real Estate Portfolio Management, 14*(2), 93-104.

Lizieri, C., & Finlay, L. (1995). International property portfolio strategies problems and opportunities. *Journal of Property Valuation & Investment, 13*(1), 6.

Louargand, M. (2007). Point of view: The serpent in the garden. *Journal of Real Estate Portfolio Management, 13*(4), 401.

LOWREY, C. F. (2002). A framework for construction international real estate portfolios. *Prudential Real Estate Investors,* , 1-11.

Mueller, P., & Ball, A. (2006). International investing: A global demographic primer. *Journal of Real Estate Portfolio Management, 12*(3), 299.

Newell, G., & Worzala, E. (1995). The role of international property in investment portfolios. *Journal of Property Finance, 06*(1), 55.

Newell, G., Worzala, E., McAllister, P., & Schulte, K. (2004). An international perspective on real estate research priorities. *Journal of Real Estate Portfolio Management, 10*(3), 161.

Nieto, Paula Camila (2005). *La Financiación de la Construcción en Colombia*, Universidad de los Andes . Facultad de Administración. Bogotá, Colombia.

Nurcombe, V. J. (1987). *International real estate valuation, investment, and development : A select bibliography*. New York: Greenwood Press.

Pacek, N., & Thorniley, D. (2007). *Emerging markets : Lessons for business success and the outlook for different markets* (2nd ed.). London: Profile Books ; in association with the Economist.

Patrimonio Estratégias Inmobiliarias. (2007). *Prospecto de colocación - programa de emisión y colocación de títulos participativos del autónomo Estratégias Inmobiliarias*

Porter, M. E. Competitive strategy and real estate development. Retrieved from www.isc.hbs.edu/Porter_Strategy_Real_Estate1.pdf

Project Management Institute. *Project management body of knowledge*

Pyhrr, S. A., Roulac, S. E., & Born, W. L. (1999). Real estate cycles and their strategic implications for investors and portfolio managers in the global economy. *Journal of Real Estate Research, 18*(1), 7-68.

Rabianski, J. S., & Black, R. T. (1999). An international perspective on the importance of real estate concepts and topics. *Journal of Real Estate Practice and Education, 2*(1), 13-32.

Root, F. R. (1990). *International trade and investment* (6th ed.). Cincinnati, OH: South-Western Pub. Co.

Root, F. R. (1994). *Entry strategies for international markets* (Rev. a expand ed.). New York; Toronto; New York: Lexington Books; Maxwell Macmillan Canada; Maxwell Macmillan International.

Root, F. R., & Visudtibhan, K. (Eds.). (1992). *International strategic management : Challenges and opportunities*. Washington: Taylor & Francis.

Roulac, S. E. (1996). The strategic real estate framework: Processes, linkages, decisions. *The Journal of Real Estate Research, 12*(3), 323-346.

Roulac, S. E. (2008). *Is kindergarten knowledge sufficient for alpha real estate investment results? (cover story)* American Real Estate Society.

Ruff, J. (2007). Commercial real estate: New paradigm or old story? *Journal of Portfolio Management, 33*, 27-36.

Seabrook, W., Kent, P. S., & How, H. H. H. (2004). *International real estate : An institutional approach*. Oxford, UK ; Malden, MA: Blackwell Pub.

Sirmans, C. F., & Worzala, E. (2003). International direct real estate investment: A review of the literature. *Urban Studies, 40*(5/6), 1081.

Sivitanides, P. S., Torto, R. G., & Wheaton, W. C. (2003). Real estate market fundamentals and asset pricing. *Journal of Portfolio Management, 30*, 45-53.

Thomas, M., & Lee, S. L. (2006). The impact of exchanges rates on international real estate portfolio allocation. *Journal of Real Estate Portfolio Management, 12*(3), 277.

United States International Trade Commission. (2006). *U.S.-Colombia trade promotion agreement: Potential economy-wide and selected sectorial effects*

van Agtmael, A. W. (2007). *The emerging markets century : How a new breed of world-class companies is overtaking the world*. New York: Free Press.

World Economic Forum. (2008). *Global risks 2008: A global risk network report January 2008* Retrieved from http://www.weforum.org/pdf/globalrisk/report2008.pdf

Worzala, E. M., Johnson, R. D., & Lizieri, C. M. (1997). Currency swaps as a hedging technique for an international real estate investment. *Journal of Property Finance, 8*(2), 134.

Worzala, E., & Newell, G. (1997). International real estate: A review of strategic investment issues. *Journal of Real Estate Portfolio Management, 3*(2), 87.

Worzala, E., & Sirmans, C. F. (2003). Investing in international real estate stocks: A review of the literature. *Urban Studies, 40*(5/6), 1115.

Worzala, E., Sirmans, G. S., & Zietz, E. N. (2000). Risk and return perceptions of institutional investors. *Journal of Real Estate Portfolio Management, 6*(2), 153.

Worzala, E. (1995), *Mitigating Exchange Rate Fluctuations for International Real Estate Investment*, *Journal of Property Valuation and Investment, 13*(5).

Ziobrowski and Boyd, (1991) , *Leverage and Foreign Investment in US Real Estate*. *Journal of Real Estate Research, 7*(1), 33-57.

Ziobrowski and Curcio, (1991) , *Diversification Benefits of U.S. Real Estate to Foreign Investors*. *Journal of Real Estate Research, 6*(2), 119-41

Ziobrowski and Ziobrowski, 1993; *Hedging foreign investment in U.S. Real Estate with currency options*. *Journal of Real Estate Research, 8*(1), 27-54

Appendices

Appendix A – Conversations with participants in the Colombian Real Estate Market

Conversations with participants in the Colombian Real Estate Market		
Name	**Position**	**Company**
Lorenzo Kling Mazuera	President	Fernando Mazuera y Cía. S.A.
Gonzalo García Ordoñez	General Manager	Pix Investments
Ignacio Durán Arias	President	Ekko (Diseño Urbano)
Mauricio García Murillo/Paula Nieto San Juán	Managing Partner/Planning Director	Viviendas Prodesa
Andrés Arango Sarmiento	President	Ospinas
Andrés Escobar Uribe	General Manager	Viviendas Planificadas S.A.
James S. Hughes/Nicholas Kling	President/Associate	Boston Andes Capital
Jose Ignacio Robledo/Germán Rojas	Managing Director/Real Estate Manager	Patrimonio Estrategias Inmobiliarias (PEI)
Andrés Alvarado Ortíz	Managing Partner	Abacus Capital
Thomas McDonald	Chief Strategic Officer	Equity International
Carlos Hernán Peñaloza	President	Pijao – Grupo de Empresas Constructoras
Camilo Congote Hernández	Managing Partner	Amarilo
Santiago Alberto Botero	President	Cuellar Serrano Gómez S.A.

Appendix B – Examples of International Real Estate Investment in Latin America

Hines Interests, an international Houston-based real estate developer formed their first Emerging Markets Real Estate Fund I “EMRE I” in 1996 with an Equity Capital commitment of $410 million. Subsequent investment vehicles formed are shown in the table below

Hines Managed Emerging Markets Funds

Name of the Fund	Equity Committed $ million	Geographic Focus	Formation date
Emerging Markets Real Estate Fund I "EMRE I"	410	Emerging Markets	September 1996
Emerging Markets Real Estate Fund II "EMRE II"	436	Western Europe	February 1999
Hines International Real Estate Fund "HIREF"	343	China Russia Poland	July 2006
HCM Holdings	110	Mexico	January 2005
HCM Holdings II	210	Mexico	March 2007
HCB Interests	100	Brazil	August 2005
HCB Interests II	500	Brazil	February 2007
HCC Interests	250	China	May-2006

Source: www.hines.com

Equity International is privately-held investment company founded in 1999 by Sam Zell and Gary Garrabrant, based in Chicago it operates globally under a Private Equity model. They have arguably the most successful international investor strategy in Latin American Real Estate.

Name of the Fund	Investment/Company	Geographic
Fund I	Corporate Properties of the	Mexico
Fund I	Credito Inmobiliario Terras	Mexico
Fund I	Fondo de Valores Inmobiliarios	Venezuela
Fund I	Homex	Mexico
Fund I	Mexico Retail Properties	Mexico
Fund I	NH Hoteles	Spain
Fund II	BR Malls	Brazil
Fund II	Bracor	Brazil
Fund II	Gafisa	Brazil
Fund II	Parque Arauco	Chile
Fund III	Orascom Housing Communities	Egypt
Fund III	Shanghai Jingrui Properties Co.	China (Shanghai)
Fund III	Renaissance LifeCare PLC	United Kingdom
Fund III	Sanctuary Residences	New Zealand

Source: www.equityinternational.co

Appendix C – EUI Sovereign Risk Index

Country	Data For	Rating	Outlook	Country	Data For	Rating	Outlook
Algeria	Jun-08	BBB	Stable	Lithuania	Jun-08	BBB	Stable
Angola	Jun-08	BB	Stable	Macedonia	Jun-08	BB	Negative
Argentina	Jun-08	B	Stable	Malawi	Jun-08	B	Stable
Australia	Jun-08	A	Stable	Malaysia	Jun-08	BBB	Stable
Austria	Ene-08	AA	Stable	Mauritius	Jun-08	BB	Stable
Azerbaijan	Jun-08	BB	Stable	Mexico	Jun-08	BBB	Stable
Bahrain	Jun-08	A	Stable	Moldova	Jun-08	B	Stable
Bangladesh	Jun-08	B	Stable	Morocco	Jun-08	BB	Stable
Belgium	Jun-08	A	Stable	Mozambique	Jun-08	BB	Stable
Bolivia	Jun-08	B	Stable	Myanmar	Jun-08	CC	Stable
Bosnia and H.	Jun-08	BB	Stable	Namibia	Jun-08	A	Stable
Botswana	Jun-08	AA	Stable	Netherlands	Feb-08	AA	Stable
Brazil	Jun-08	BB	Stable	New Zealand	Jun-08	A	Stable
Bulgaria	Jun-08	BBB	Stable	Nicaragua	Jun-08	CC	Stable
Cambodia	Jun-08	CCC	Stable	Nigeria	Jun-08	BB	Stable
Cameroon	Jun-08	BB	Stable	Norway	Ene-08	AAA	Stable
Canada	Ene-08	AA	Stable	Oman	Jun-08	A	Stable
Chile	Jun-08	A	Stable	Pakistan	Jun-08	B	Negative
China	Jun-08	BBB	Stable	Panama	Jun-08	BB	Stable
Colombia	Jun-08	BB	Stable	Papua New G.	Jun-08	BB	Stable
Costa Rica	Jun-08	BB	Stable	Paraguay	Jun-08	B	Stable
Côte dIvoire	Jun-08	CCC	Stable	Peru	Jun-08	BBB	Stable
Croatia	Jun-08	BB	Stable	Philippines	Jun-08	BB	Stable
Cuba	Jun-08	CCC	Stable	Poland	Jun-08	BBB	Stable
Cyprus	Ene-08	BBB	Positive	Portugal	Jun-08	A	Stable
Czech Republic	Jun-08	BBB	Stable	Qatar	Jun-08	A	Stable
Denmark	May-08	AAA	Stable	Romania	Jun-08	BB	Stable
Dominican R.	Jun-08	B	Stable	Russia	Jun-08	BBB	Stable
Ecuador	Jun-08	CCC	Stable	Saudi Arabia	Jun-08	A	Stable
Egypt	Jun-08	BB	Stable	Senegal	Jun-08	BB	Stable
El Salvador	Jun-08	BB	Stable	Serbia	Jun-08	B	Stable
Equatorial G.	Jun-08	BB	Stable	Singapore	Jun-08	AA	Stable
Estonia	Jun-08	BBB	Stable	Slovakia	Jun-08	BBB	Stable
Ethiopia	Jun-08	B	Stable	Slovenia	Jun-08	AA	Stable
Finland	Ene-08	AAA	Stable	South Africa	Jun-08	BBB	Stable
France	Jun-08	AA	Stable	South Korea	Jun-08	A	Stable
Gabon	Jun-08	BB	Stable	Spain	Abr-08	AA	Stable
Germany	Jun-08	AA	Stable	Sri Lanka	Jun-08	B	Stable
Ghana	Jun-08	B	Stable	Sudan	Jun-08	CC	Stable
Greece	Jun-08	BBB	Stable	Sweden	Jun-08	AAA	Stable
Guatemala	Jun-08	BB	Stable	Switzerland	May-08	AAA	Stable
Honduras	Jun-08	B	Stable	Syria	Jun-08	CCC	Stable
Hong Kong	Jun-08	AA	Stable	Taiwan	Jun-08	A	Stable
Hungary	Jun-08	B	Stable	Tanzania	Jun-08	BB	Stable
India	Jun-08	BBB	Stable	Thailand	Jun-08	BB	Stable
Indonesia	Jun-08	B	Stable	Trinidad and T.	Jun-08	A	Stable

Country	Data For	Rating	Outlook	Country	Data For	Rating	Outlook
Iran	Jun-08	B	Stable	Tunisia	Jun-08	BBB	Stable
Iraq	Jun-08	CC	Stable	Turkey	Jun-08	BB	Stable
Ireland	Feb-08	AA	Stable	Uganda	Jun-08	BB	Stable
Israel	Jun-08	A	Stable	Ukraine	Jun-08	BB	Stable
Italy	Abr-08	BBB	Stable	UAE	Jun-08	A	Stable
Jamaica	Jun-08	CC	Stable	United Kingdom	Mar-08	AA	Stable
Japan	Feb-08	A	Stable	USA	May-08	AA	Stable
Jordan	Jun-08	B	Stable	Uruguay	Jun-08	BB	Stable
Kazakhstan	Jun-08	BB	Stable	Uzbekistan	Jun-08	B	Stable
Kenya	Jun-08	CCC	Stable	Venezuela	Jun-08	B	Stable
Kuwait	Jun-08	A	Stable	Vietnam	Jun-08	B	Stable
Latvia	Jun-08	BBB	Stable	Yemen	Jun-08	B	Stable
Lebanon	Jun-08	CCC	Stable	Zambia	Jun-08	B	Stable
Libya	Jun-08	BBB	Stable	Zimbabwe	Jun-08	D	Stable

Band	**Characteristics**
AAA	Capacity and commitment to honor obligations not in question under any foreseeable circumstances.
AA	Capacity and commitment to honor obligations not in question.
A	Capacity and commitment to honor obligations strong.
BBB	Capacity and commitment to honor obligations currently but somewhat susceptible to changes in economic climate.
BB	Capacity and commitment to honor obligations currently but susceptible to changes in economic climate.
B	Capacity and commitment to honor obligations currently but very susceptible to changes in economic climate.
CCC	Questionable capacity and commitment to honor obligations. Patchy payment record.
CC	Somewhat weak capacity and commitment to honor obligations. Patchy payment record. Likely to be in default on some obligations.
C	Weak capacity and commitment to honor obligations. Patchy payment record. Likely to be in default on significant amount of obligations.
D	Very weak capacity and commitment to honor obligations. Poor payment record. Currently in default on significant amount of obligations.

Appendix D – Largest 35 Developers in Colombia by Assets (2,076COP$:1US$)

	NAME	CITY	ASSETS in COP$	ASSETS in US$	SALES in COP$	SALES in US$
1	CUSEZAR	BOGOTA D.C.	712.136.570,000	342.993,418	218.766.635,000	105.366,750
2	MARVAL	BUCARAMANGA	578.051.103,000	278.412,501	329.076.801,000	158.496,532
3	CONS. BOLIVAR	BOGOTA D.C.	474.511.203,000	228.543,550	254.834.899,000	122.738,667
4	CONT. COLPATRIA	BOGOTA D.C.	362.527.628,000	174.607,787	149.103.506,000	71.814,204
5	A. CHAR	BARRANQUILLA	276.622.114,000	133.232,260	79.710.698,000	38.391,856
6	CONCONCRETO	ITAGUI	257.213.164,000	123.884,134	335.970.628,000	161.816,875
7	CONS. MELENDEZ	CALI	227.988.525,000	109.808,381	58.924.792,000	28.380,534
8	MAZUERA	BOGOTA D.C.	214.932.713,000	103.520,180	41.486.434,000	19.981,524
9	AMARILO	BOGOTA D.C.	148.191.144,000	71.374,774	112.534.018,000	54.200,878
10	GRUPO MONARCA	AMALFI	178.384.508,000	85.917,105	47.661.169,000	22.955,523
11	DAVID PUYANA	FLORIDABLANCA	157.683.083,000	75.946,471	40.938.851,000	19.717,786
12	EDICRETO S.A.	MEDELLIN	152.058.750,000	73.237,568	36.064.964,000	17.370,327
13	ARQ. Y CON. S A	MEDELLIN	133.088.403,000	64.100,691	76.307.835,000	36.752,901
14	PEDRO GOMEZ	BOGOTA D.C.	132.620.738,000	63.875,445	62.093.449,000	29.906,685
15	OSPINAS	BOGOTA D.C.	129.405.037,000	62.326,635	13.122.699,000	6.320,416
16	PIJAO	BOGOTA D.C.	110.037.956,000	52.998,675	57.788.163,000	27.833,088
17	URB. MANUELITA	PALMIRA	99.650.501,000	47.995,662	28.560.503,000	13.755,879
18	A.I.A S.A.	MEDELLIN	95.768.906,000	46.126,131	134.976.346,000	65.010,000
19	CONS. ARRECIFE S.A.	BOGOTA D.C.	93.837.541,000	45.195,908	35.877.219,000	17.279,902
20	CONS. BARAJAS S.A.	CARTAGENA	91.112.157,000	43.883,254	45.574.099,000	21.950,307
21	CONINSA	MEDELLIN	89.708.907,000	43.207,393	116.618.998,000	56.168,368
22	CONSTRUVIS S.A.	MEDELLIN	76.344.588,000	36.770,603	95.287.054,000	45.894,051
23	EKKO	BOGOTA D.C.	71.004.400,000	34.198,555	31.874.918,000	15.352,234
24	FAJARDO M.	MEDELLIN	62.629.744,000	30.164,986	18.576.285,000	8.947,081
25	CONS. ALPES S A	CALI	59.022.785,000	28.427,731	50.866.888,000	24.499,525
26	JARAMILLO M.	CALI	58.548.754,000	28.199,419	55.657.326,000	26.806,791
27	LONDOÑO G.	MEDELLIN	46.103.386,000	22.205,232	4.016.136,000	1.934,332
28	BOCACOLINA	BOGOTA D.C.	37.116.315,000	17.876,700	8.985.295,000	4.327,677
29	ARIAS S. Y S.	BOGOTA D.C.	36.255.794,000	17.462,239	17.165.157,000	8.267,425
30	APIROS LTDA	BOGOTA D.C.	33.631.937,000	16.198,484	38.574.026,000	18.578,792
31	SAN ANTONIO	BOGOTA D.C.	28.945.666,000	13.941,389	77.300.000,000	37.230,768
32	VIVIENDAS P.	BOGOTA D.C.	26.559.181,000	12.791,962	8.465.715,000	4.077,427
33	ACIERTO	MEDELLIN	17.121.707,000	8.246,498	5.473.981,000	2.636,488
34	CUSEGO	BOGOTA D.C.	13.816.821,000	6.654,733	5.381.909,000	2.592,142
35	UMBRAL	MEDELLIN	12.317.014,000	5.932,366	4.619.341,000	2.224,859

Appendix E – Jones Lang LaSalle 2006 Transparency Index

2004	2006	Country	Transparency Score 1-5 (06)	´04 Tier	´06 Tier	Transparency Change
1	1	Australia	1.15	1	1	no change
1	3	United States	1.15	1	1	no change
3	2	New Zealand	1.20	1	1	no change
4	5	Canada	1.21	1	1	no change
5	4	United Kingdom	1.25	1	1	no change
6	7	Hong Kong*	1.30	2	1	
7	6	Netherlands	1.37	1	1	no change
8	8	Sweden*	1.38	2	1	
9	11	France*	1.40	2	1	no change
10	9	Singapore*	1.44	2	1	
11	12	Finland	1.63	2	2	no change
12	10	Germany	1.67	2	2	no change
13	21	South Africa	1.77	2	2	
14	16	Denmark	1.84	2	2	
15	17	Austria	1.85	2	2	
15	14	Ireland	1.85	2	2	no change
17	15	Belgium	1.88	2	2	
18	19	Spain	1.91	2	2	
19	13	Switzerland	1.94	2	2	no change
20	18	Norway	1.96	2	2	
21	22	Italy*	2.14	3	2	
22	20	Malaysia	2.21	2	2	
23	26	Japan*	2.40	3	2	
24	23	Portugal*	2.44	3	2	
25	29	Mexico	2.51	3	3	
26	24	Czech Republic	2.69	3	3	
27	25	Hungary	2.76	3	3	
27	28	Poland	2.76	3	3	
29	30	Israel	2.86	3	3	
29	27	Taiwan	2.86	3	3	
31	34	South Korea	2.88	3	3	
32	na	Slovakia	2.99	na	3	na
33	31	Chile	3.11	3	3	
34	32	Greece	3.13	3	3	
35	38	Russia*	3.22	4	3	
36	35	Philippines	3.30	3	3	no change
37	37	Brazil*	3.31	4	3	
38	na	Slovenia	3.35	na	3	na
39	36	Thailand	3.40	3	3	no change
40	40	Argentina*	3.41	4	3	
41	41	India*	3.46	4	3	
42	39	P.R. China	3.50	4	4	
43	na	Macau	3.65	na	4	na
44	45	United Arab	3.77	4	4	

2004	2006	Country	Transparency Score 1-5 (06)	´04 Tier	´06 Tier	Transparency Change
		Emirates				
45	42	Costa Rica	3.83	4	4	no change
46	44	Indonesia	3.90	4	4	
47	46	Turkey*	4.04	5	4	
48	na	Peru	4.08	na	4	na
48	50	Romania*	4.08	5	4	
50	**43**	**Colombia**	**4.10**	**4**	**4**	**no change**
51	na	Uruguay	4.13	na	4	na
52	49	Saudi Arabia*	4.14	5	4	
53	na	Panama	4.18	na	4	na
54	48	Egypt	4.30	5	5	
55	na	Venezuela	4.43	na	5	na
56	47	Vietnam	4.69	5	5	no change

Tier 1: High Transparency

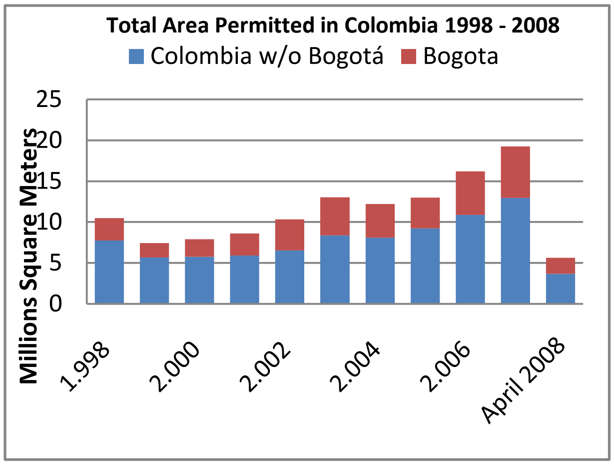
Tier 2: Transparent

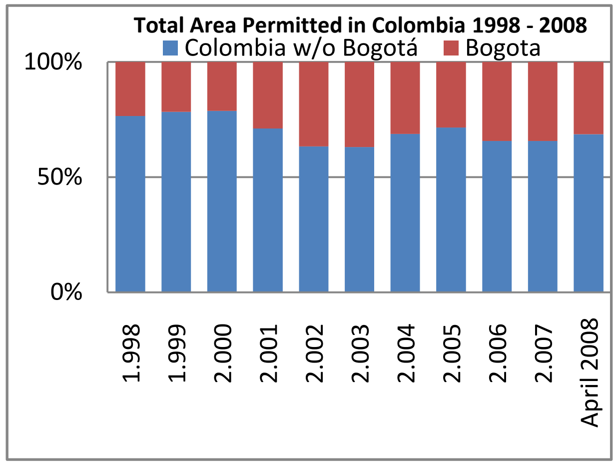
Tier 3: Semi-transparent

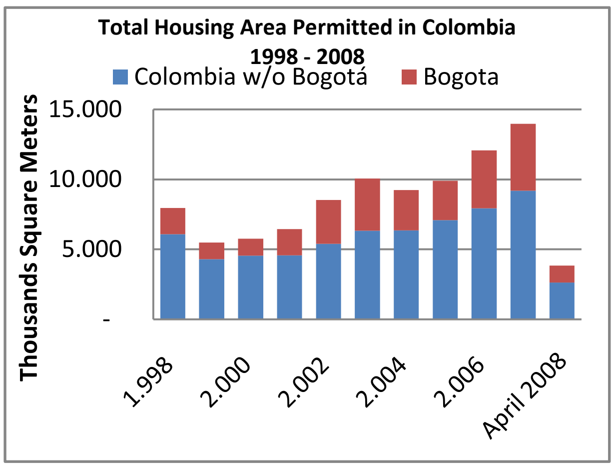
Tier 4: Low-transparency

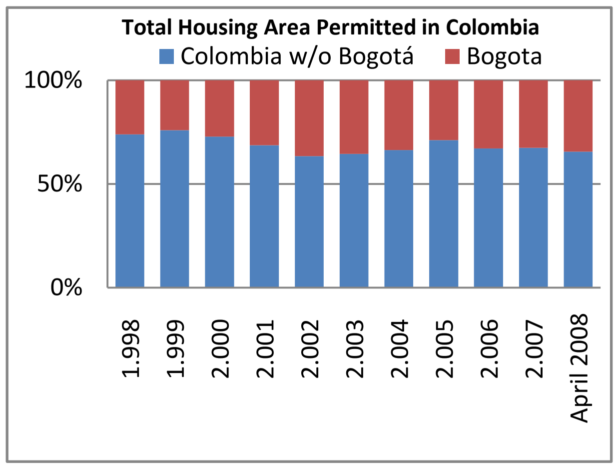
Tier 5: Opaque

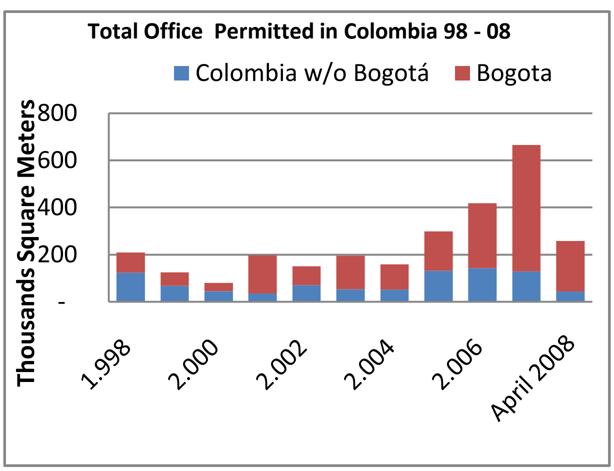
Appendix F – Total Areas Permitted in Bogota and Colombia 1998-2008

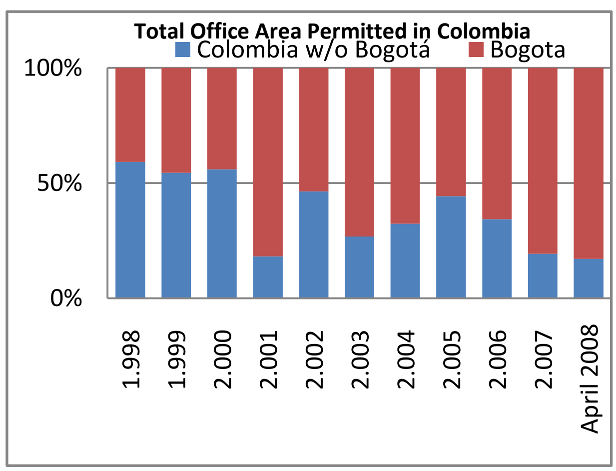












Appendix G – Price Index for Class A+ Office space in Bogotá 1997-2008

Quarter	Index	Quarter % Change	Price per square meter
2Q - 1997	74,78	4,12%	2.753.764
3Q - 1997	76,06	1,71%	2.800.900
4Q - 1997	77,17	1,46%	2.841.776
1Q - 1998	79,40	2,89%	2.923.895
2Q - 1998	79,51	0,14%	2.927.946
3Q - 1998	78,53	-1,23%	2.891.858
4Q - 1998	78,30	-0,29%	2.883.388
1Q - 1999	78,36	0,08%	2.885.597
2Q - 1999	67,79	-13,49%	2.496.358
3Q - 1999	67,02	-1,14%	2.468.003
4Q - 1999	65,19	-2,73%	2.400.614
1Q - 2000	69,62	6,80%	2.563.748
2Q - 2000	74,31	6,74%	2.736.457
3Q - 2000	69,33	-6,70%	2.553.069
4Q - 2000	68,54	-1,14%	2.523.977
1Q - 2001	70,44	2,77%	2.593.944
2Q - 2001	74,11	5,21%	2.729.092
3Q - 2001	78,56	6,00%	2.892.962
4Q - 2001	74,27	-5,46%	2.734.984
1Q - 2002	69,25	-6,76%	2.550.123
2Q - 2002	68,61	-0,92%	2.526.555
3Q - 2002	81,08	18,18%	2.985.761
4Q - 2002	79,28	-2,22%	2.919.476
1Q - 2003	81,69	3,04%	3.008.224
2Q - 2003	81,39	-0,37%	2.997.177
3Q - 2003	67,37	-17,23%	2.480.892
4Q - 2003	72,56	7,70%	2.672.013
1Q - 2004	79,66	9,79%	2.933.470
2Q - 2004	74,91	-5,96%	2.758.552
3Q - 2004	87,42	16,70%	3.219.231
4Q - 2004	89,95	2,89%	3.312.398
1Q - 2005	99,78	10,93%	3.674.386
2Q - 2005	100,81	1,03%	3.712.316
3Q - 2005	100,23	-0,58%	3.690.957
4Q - 2005	97,87	-2,35%	3.604.051
1Q - 2006	96,08	-1,83%	3.538.134
2Q - 2006	99,09	3,13%	3.648.977
3Q - 2006	105,86	6,83%	3.898.282
4Q - 2006	100,00	-5,54%	3.682.488
1Q - 2007	105,84	5,84%	3.897.545
2Q - 2007	113,51	7,25%	4.179.992
3Q - 2007	128,13	12,88%	4.718.372
4Q - 2007	131,25	2,44%	4.833.265
1Q - 2008	134,42	2,42%	4.950.000
		CAGR 10 Last Years	5,41%
		CAGR 5 Last Years	10,47%

Source: DANE (Departamento Nacional de Estadística) and CAMACOL (Cámara Colombiana de la Construcción).

Appendix H – Equivalencies

1 meter = 3.28 feet = 39.4 inches
1 square meter = 10.76 square feet
1 kilometer = 0.62 miles = 1,093.6 yards
1 hectare = 10,000 square meters = 2.47 acres

Square meter (M2)
Square feet (sf)
Colombian Peso (COP$)
United States Dollar (US$)